DOCUMENT RESUME

ED 202 820 SP 018 036

AUTHOR Hopkins, David
TITLE Survey Feedback and the Problem of Change in Teacher Education.
PUB DATE Dec 80
NOTE 233p.; Ph.D. Thesis, Simon Fraser University.

EDRS PRICE MF01/PC10 Plus Postage.
DESCRIPTORS Adoption (Ideas); Attitude Change; *Change Strategies; *Educational Change; *Feedback; Foreign Countries; Higher Education; Information Utilization; Institutional Characteristics; *Institutional Environment; *Schools of Education; *School Surveys; Teacher Response
IDENTIFIERS *Canada

ABSTRACT

The problem of change in Canadian teacher education was studied, and the effectiveness of survey feedback, an organization development intervention, was tested in twelve Canadian teacher education institutions. Based on a review of the literature on change and teacher education, the argument is made that the impetus for change occurs as a result of environmental pressure which is inhibited by contextual variables operating within the institution. A survey feedback intervention was proposed as a way of neutralizing these contextual variables and of facilitating change within the institutions. The survey feedback intervention took three forms, with four institutions in each group: data handback; data handback and action planning; and data feedback and follow through. The intervention had significant impact only in the latter group, where positive changes occurred with communication, goals, problem solving, and decision making. In the dimensions of implementation and climate, the intervention showed a slight negative effect. A theory of drift accounts for the relative failure of the intervention, the problem of change in teacher education, and the paradox between the appearance and the reality of change. (FG)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED202820

SURVEY FEEDBACK AND THE PROBLEM OF CHANGE IN TEACHER EDUCATION

by

David Hopkins

B.A.(Hons.), University of Reading, 1970

P.G.C.E., University of Wales, 1971

M.Ed., University of Sheffield, 1976

A THESIS SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

in the Faculty

of

Education

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

David Hopkins

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

© David Hopkins 1980

SIMON FRASER UNIVERSITY

December 1980

All rights reserved. This thesis may not be reproduced in whole or in part, by photocopy or other means, without permission of the author.

SP018036

APPROVAL

Name: David Hopkins

Degree: Doctor of Philosophy

Title of Thesis: Survey Feedback and the Problem of Change in Teacher Education

Examining Committee:

Chairman: John V. Trivett

Marvin Wideen
Senior Supervisor

Maurice Gibbons
Professor

Michael ~~Manley-Casimir~~
Associate Professor

Richard Schmuck
Professor, University of Oregon

Philip H. Winne
Associate Professor
Faculty of Education
Simon Fraser University
External Examiner

Phillip Runkel
Co-Director, Program on Strategies of Organizational Change, in the Center of Educational Policy and Management, and Professor of Education and Psychology
University of Oregon
External Examiner

Date approved December 1, 1980

APPROVAL

Name: David Hopkins

Degree: Doctor of Philosophy

Title of Thesis: Survey Feedback and the Problem of Change in Teacher Education

Examining Committee:

Chairperson: Jaap Tuinman

Marvin Wideen
Senior Supervisor

Maurice Gibbons

Michael Manley-Casimir

Richard Schmuck
Centre for Educational Policy and Management, University of Oregon

Phillip Runkel
External Examiner
Centre for Educational Policy and Management, University of Oregon

Date Approved: _____

ABSTRACT

The study is an examination of the problem of change in Canadian teacher education, and an assessment of the effectiveness of an organization development (OD) intervention, in this case survey feedback, in engendering a capacity for change in Teacher Training Institutions (TTIs). A sample of 12 Anglophone Canadian TTIs provided the context for the study over a two-year period.

Based on a review of the literature on change and teacher education, the argument is made that the impetus for change occurs as a result of environmental pressure which is inhibited by contextual variables operating within the institution. The OD literature was reviewed, and a survey feedback intervention proposed as a way, 1) of neutralizing these contextual variables, and 2) of facilitating change within TTIs.

A survey feedback intervention was used in 12 Canadian TTIs, and the impact of the intervention was monitored. A qualitative methodology was employed, and data was derived from interviews, extant documentation and field notes. In all, 43 days were spent in the field and 55 interviews conducted.

A capacity for change was defined and operationalized as positive change along six dimensions, viz., communications, goals, problem solving, decision making, implementation and climate. The survey feedback intervention took three forms, with four TTIs in each group: Data Handback; Data Handback and Action Planning; and Data Feedback

and Follow Through. The intervention had significant impact only in the latter group where positive change occurred on the dimensions associated with communication, goals, problem solving, and decision making. On the dimensions of implementation and climate the intervention showed a slightly negative effect.

Explanations were sought for the relative failure of the intervention. By drawing on the data an attempt was made to explicate the change process in Canadian teacher education. The barriers to change were first articulated, and the ecology of contemporary teacher education was described. Three interrelated components were identified: the influence of university norms, the role crisis in TTIs, and their vulnerability to the environment. Individual differences amongst TTIs were explained in terms of the notion of saga. This is a collective perception that acculturates TTIs as a result of a cumulative resistance to change, and is a major inhibiting factor in the change process of TTIs.

From these findings a substantive theory of change in teacher education was generated. The theory is based on the concept of drift which is the central construct emerging from the study. It is predicated on the interaction between the environmental impetus for change, and the internal constraints inhibiting change. When the pressure for change is sustained over a period of time and is moderated through the saga of the institution, the resulting pattern of change is essentially unpredictable.

DEDICATION

To my Parents:

to the memory of my Father

and to my Mother, in the hope that she also approves.

QUOTATION

It goes without saying that this is a large project for one mind to try to put between two covers; I am painfully aware that I may not have succeeded, that I may have bitten off too much and may have tried to put it too sparely so that it could all fit in. As in most of my other work, I have reached far beyond my competence and have probably secured for good a reputation for flamboyant gestures. But the times still crowd and give me no rest, and I see no way to avoid ambitious synthetic attempts; either we get some kind of grip on the accumulation of thought or we continue to wallow helplessly, to starve amidst plenty, so I gamble with science and write, but the game seems to me serious and necessary.*

*Ernest Becker, Escape from Evil. New York: Free Press, 1975, p. xviii-xix.

ACKNOWLEDGEMENTS

It is chastening to realize how much support is required to complete a study such as this, and humbling to experience it so freely given.

My thanks first to the supervisory committee for the thesis; to Marvin Wideen, who went to the limits of friendship to sustain and support me during the three years it took to initiate and complete the study,

to Maurice Gibbons, who challenged me to strive for excellence,

to Mike Manley-Casimir, who gave me courage to do what I felt was right and gave direction and reinforcement when it was most needed, and to Dick Schmuck, whose work and example gave me a model to follow.

Philip Runkel, the external examiner, did me the compliment of subjecting the thesis to a rigorous and exhaustive review. His incorrigible quest for the highest of standards enhanced the quality of the study in its final stages.

The institutions of the sample, and their internal facilitators opened themselves to me and gave me every support; in a real way this study would not have been possible without them.

Conversations with my colleagues and friends, Ted Aoki, Norm Barling, Ray Bolam, Michael Fullan, Pat Holborn, and Philip Winne, contributed to any clarity this study may have achieved.

Finally, without the love and support of my family, Mary, Kirsten and Polly, this study may have been finished a little earlier and without so many late nights. However, without them it would have been so difficult to sustain and probably never even started. In that sense this is theirs too.

TABLE OF CONTENTS

APPROVAL ii

ABSTRACT iii

DEDICATION v

QUOTATION vi

ACKNOWLEDGEMENTS vii

TABLE OF CONTENTS viii

LIST OF TABLES x

LIST OF FIGURES xi

CHAPTER ONE

Introduction 1

CHAPTER TWO

Change and the Organizational Character of Teacher Education 6

CHAPTER THREE

Organization Development and Survey Feedback 35

CHAPTER FOUR

The Nature of the Invervention 65

CHAPTER FIVE

Methodology 87

CHAPTER SIX

The Impact of Survey Feedback 125

CHAPTER SEVEN

The Problem of Change in Teacher Education 146

TABLE OF CONTENTS, CONTINUED

CHAPTER EIGHT

Drift and Change in Teacher Education 183

APPENDIX ONE

Interview Schedule 198

APPENDIX TWO

Interview Schedule 202

APPENDIX THREE

Criteria for Assessing (In) Effectiveness of Survey Feedback Intervention 205

BIBLIOGRAPHY 206

LIST OF TABLES

6:1 Impact of Survey Feedback Intervention on the Dimensions associated with a Capacity for Change 127

7:1 Aggregate Faculty Responses from the GIL. Questions L2, L3, and L4 150

LIST OF FIGURES

2:1	A Matrix for Analyzing the Nature of Change in Higher Education	10
2:2	Dimensions which Comprise a Capacity for Change in Teacher Training Institutions	29
2:3	The Change Process in Teacher Education	34
3:1	Categorization of OD Interventions	47
4:1	Phases of the Intervention	66
4:2	The Data Collection/Feedback Cycle	68
4:3	Group Problem Solving	73
4:4	A Problem Solving Cycle	74
4:5	Variability of Intervention in the Twelve Institutions of the Sample	80
5:1	Summary of Phases in Action Research	96
5:2	Days in the Field: Participant Observation	110
5:3	Days in the Field: Interviews	111
7:1	Barriers to Change in Teacher Education	153
7:2	Institutional Sagas	174

CHAPTER ONE

Introduction

The study is an examination of the problem of change in Canadian teacher education, and an assessment of the effectiveness of an organization development (OD) intervention, in this case survey feedback, in engendering a capacity for change in Teacher Training Institutions (TTIs). A sample of 12 Anglophone Canadian TTIs provided the context for the study over a two-year period.

There was a plethora of apparent change in Canadian teacher education during the nineteen seventies. The transfer of the teacher training function from the college to the university was completed, and fundamental program change occurred in virtually every institution. A major innovation occurred with the introduction of the extended practicum, and declining enrolments and budgetary restraints necessitated changes of different sorts.

Despite this catalogue, little appears to have changed in the behaviour of those closest to the innovations. Schools, teachers, students and professors carry on in much the same way as they did ten years ago. And the same concerns are raised about the effectiveness of teacher education programs.

The interaction between two discrete factors explains the paradox of the appearance and reality of change. The first is that change in teacher education occurs as the result of environmental pressure. The second is that this pressure is resisted by TTIs because of the existence of contextual variables mitigating against change. This means in

practice that any innovation has to overcome the barriers to change within TTIs and be filtered through the contextual variables which exist in the organization. The process distorts the nature of the change and makes the implementation and institutionalization of an innovation very difficult. This is the argument that informs the study.

The context of the study were the Anglophone TTIs in Canada, of which 12 comprised the sample for a Social Sciences and Humanities Research Council (SS & HRC) project, 'The Management of Change in Teacher Education'.[1] I was involved in the project from its initiation, and this study grew out of my role as research assistant and process consultant. The project had two major components. The first was to gather data from the sample on the change process in teacher education. This was accomplished by the use of a questionnaire and interviews. The second component was the attempt to initiate a capacity for change in the sample institutions, by the use of an OD survey feedback intervention. Here the data from the questionnaire was systematically fed back to the institution concerned using an intervention design aimed at enhancing the problem-solving capacity of the institution. Although data was collected from all institutions in the sample, the intervention was only fully operationalized in four institutions. These comprised the Data Feedback and Follow Through Group as defined in Chapter Four. My responsibilities as research assistant and process consultant on the project were to this group of institutions. As a result I was in a

---

1. The Management of Change in Teacher Education, SS & HRC grant #410-77-0459-R1, principal investigators Dr. Michael Fullan and Dr. Marvin Wideen. The project also had links with IMTEC, The International Learning Cooperative, Oslo, Dr. Per Dalin, Director. The project and its relationship to the present study is described in more detail in Chapter Four.

particularly advantageous position to observe the impact of the intervention and the change process. The study is to my knowledge the first assessment of an OD intervention in a Teacher Education setting and to make comparisons across institutions.

The hypothesis was that the impact of the intervention would enhance the problem solving capacity of the institution. The capacity was defined along six dimensions viz communications, goals, problem solving, decision making, climate and implementation. I used a naturalistic research methodology, based on data gathered from documents, observations and interviews. Observations and interviews were also carried out in four other institutions--the Data Handback and Action Planning Group. From the analysis of the data, it was concluded that the group who received the full treatment exhibited considerably more change than the limited treatment group. And this positive change was limited to the dimensions associated with communication, goals, problem solving and decision making.

The limited impact of the intervention raised wider questions about the change process itself. From the data gathered on the change process in teacher education, I was able to identify certain barriers to change and sketch out the contemporary ecology of Canadian teacher education. This ecology had a number of aspects, for example, the influence of the university, the role crisis in TTIs, the legacy of the teachers college, and their current vulnerability to the environment. In addition I explained individual differences amongst TTIs by reference to the notion of saga which is a perceptual image that acculturates TTIs as a result of their cumulative individual resistance to change. In the final

chapter of the study I propose a substantive theory of organizational drift which explains the relative failure of the intervention and is consistent with the ecological features of contemporary teacher education. Drift is predicated on the interaction between the environmental impetus for change, and the internal constraints inhibiting change. When the pressure for change is sustained over a period of time and is moderated through the saga of the institution, the resulting pattern of change is essentially unpredictable.

Having outlined the context and major findings of the study, this introductory chapter concludes with a brief overview of the contents of the following chapters.

The character of change in teacher education is outlined by reference to the literature (chapter two). By drawing on the literature on Organization Development, it is hypothesized that a survey feedback intervention would neutralize the barriers to change existing in TTIs and engender within them a capacity to manage change (chapter three). A model for intervention is then outlined and its implementation described in a sample of 12 Anglophone Canadian TTIs (chapter four). The impact and effectiveness of the intervention is assessed using a qualitative methodology (chapter five). The survey feedback intervention is seen to be only partially successful in facilitating a change capacity in the institutions of the sample (chapter six). Reasons are sought as to why this was the case, and the change process and ecology of teacher education is explained (chapter seven). Finally, a theory of drift is presented. This serves to account for the relative failure of the

intervention, the problem of change in teacher education and the paradox between the appearance and reality of change outlined above (Chapter Eight).

CHAPTER TWO

Change and the Organizational Character of Teacher Education

In The Culture of the School and the Problem of Change, Sarason (1971), made the vital distinction between the object of change and the process of changing. He did this in connection with a specific innovation in higher education (the introduction of a new secondary education program at Yale). He argues (chap. 5, p. 60) that there are two major reasons for the relative failure of innovation in higher education. The first is our lack of understanding of the dynamics of change, in particular the setting and the culture in which change occurs. The second is our neglecting to consider the internal features of the institution.

The dynamics and complexities of change are only just beginning to be understood. Runkel (1980) has recently argued that a strategy for change must be a social strategy; the more complex the change, the greater the need to coordinate the actions of more people, and subsequently there is a greater need to change the assumptions and norms that people hold. More than this, people coexist in schools or universities; these are open systems which by definition are subject to many outside influences. Runkel makes the further point that schools and educational institutions are more than open systems because they are comprised of individuals who each have unique images of it, and that as a result schools have images of these images. This notion of the school as an imagining system adds enormously to the complexity of our conceptualization of institutional change. It heightens if not parodies

the point that the system in which we are intervening requires as careful consideration as the object of change itself.

This is a major theme of the study, that the milieu of the intervention must be taken account of if innovation and change are to be successful in higher education, in particular teacher education. This is no simple matter, for our knowledge and understanding of the context and culture of teacher education is limited and shaky. Those who have helped to disclose the nature of schools and schooling (for example, Sarason, 1971; Lortie, 1975; Bowles & Gintis, 1976), have unfortunately not extended their analysis to higher education. The task of more fully appreciating the nature of TTIs is attempted later in the chapter. This analysis leads to a model of intervention in teacher education which takes account of the contextual variables of TTIs as well as the object of change. Using Sarason's example, the introduction of a new secondary program needs to be conceptualized in such a way that it neutralizes or transforms organizational resistance. It is important that the process and task elements of change are engaged in a form of dialectic which has a unified goal. This contention is made early in the chapter, for it provides the main thread upon which the argument is hung.

The next section makes a further distinction between change as an object, i.e. what is it in higher education that has changed or is changing, and the qualitative nature of change, i.e. how we go about it.

Forms and Types of Change

In her Inventory of Academic Innovation and Reform, Heise (1973) cites a broad range of activity under this general label; anything from the establishment of a new innovative institution such as Evergreen College in Washington to changes in tenure policies at Hampshire College, Amherst, Mass., fall within her ambit. She describes a bewildering array of changes (i.e., the content of change), and similarly there is large variation in the form that these changes take.

Dill and Freidman (1979), in their recent paper on innovation and change in higher education, outline three differing types of change: accidental change, purposive change and innovation.

Accidental change is a more precise definition of systemic change in its broadest sense. Dill and Friedman use the example of declining and shifting enrolments, which has led to a broad redistribution of resources and reemphasis in program offerings in a number of TTIs. It is an environmental change over which the individual institution has little control.

This example could also be used to illustrate purposive change. If the institution saw the inevitability of change and turmoil occurring as a result of declining enrolments and decided to act proactively to ameliorate the probable negative effects of this change, by searching out new markets and offering different programs, then this would be an example of purposive change. This is not to say that purposive change is necessarily a response to an environmental stimulus, although the argument of the study is that this is most usually the case.

Finally, innovation is regarded as the importing of a technological package into an institution for the prosecution of its ongoing activities. When a TTI decides to change its method of teaching and adopt an already developed idea, say a competency based model of teacher education, as did the Faculty of Education at the University of Toledo in 1971 (Wideen, forthcoming), then the change which occurs is said to be innovative.

The use of the word "change" either as a verb or a noun in the context of this study implies no value orientation. It is not necessarily either "good" or "bad", just an alteration in the practices or norms of an ongoing institutional system.

This discussion presents us with a simple matrix for understanding or analyzing the nature of change in higher education. One criterion being the object of change, the other the nature of change. An illustration of this matrix is given in Figure 2:1. It is one way to make sense of a body of rather disconnected literature.

Insert Figure 2:1 about here

The literature on change is burgeoning (Havelock, 1969; Bolam, 1975; and Runkel, 1980). There is also a sophisticated literature on how to manage planned change (see for example Lippitt, Hooyman, Sashkin & Kaplan, 1978), which refers directly to activities and procedures within the categories of purposive change and innovation articulated above (we have yet to learn how to handle accidental change!).

Nature of Change ↓ / Object of change →	Structural	Administrative	Program	Departmental, etc.
Accidental				
Purposive				
Innovative				

Figure 2:1. A matrix for analyzing the nature of change in higher education.

A number of different change strategies can be identified in the literature (Bennis, Benne & Chin, 1969; Hoyle, 1976; Lippitt et al., 1978). The strategies of change identified by these authors can be classified into two types. Hoyle (1976) refers to "fundamental strategies" and to "recent approaches"; this distinction captures the chronology of their development but a more appropriate label may be descriptive and prescriptive models of change.

Bennis, Benne and Chin (1969) were the first to systematically describe the fundamental strategies of change (viz., power-coercive, normative-reeducative, and rational-empirical). These broad groupings are said to comprise the range of approaches to change. Power-coercive refers to an approach which is direct, legalistic and authoritarian, and where the flow of communication is one way, from the initiator to the practitioner. Normative-reeducative strategies are directed at the attitudes, norms and opinions of a group of practitioners, the mode of approach usually being made through group work with an emphasis on two-way interpersonal communication. Rational-empirical refers to an approach based on expertise which is aimed at the reason or intellect of the practitioner. The medium used is usually the book, lecture or advertisement, and communication is largely one way.

There are two problems with this description of change strategies. The first is that the categories are so broad and so few that it is difficult to capture reality within them. Their main utility therefore becomes antiquarian or taxonomic. Second, these strategies are preoccupied with a top-down approach to change; they assume that in every

case change is linear and motivated by an authority figure. It may be the case that external pressure provides the motivation for change, but it is certainly not the case that the receiving environment can be ignored. This linear approach to change is partly responsible for the failure of the "decade of educational reform" to affect educational practice. There is now ample evidence to suggest that "top-down" approaches to change are not as effective as once was thought (House, 1979; Hopkins & Wideen, forthcoming), and that other paradigms have to be sought.

Unfortunately these new approaches are not to be found in the prescriptive strategies either. These strategies viz., the Research, Development and Diffusion Model (Guba & Clark, 1965), the Social Interaction and Diffusion Model (Rogers & Shoemaker, 1971) and the Linkage Model (Havelock, 1973) all reflect a linear approach to change and tend to disregard the variables existing within the receiving environment. Lippitt et al. (1978) describes them this way:

> The aim (is) to get the client to change in certain specified ways, to adopt certain practices, (and to) use certain new technological devices.

and:

> All are oriented toward the development of knowledge, by researchers, which could be of benefit to potential users if put into practice. Thus the central question voiced by all three models is,"Given that researchers have developed some new device, mechanism, process or procedure, how can potential users be convinced to put it into practice?" (p. 24)

This of course runs counter to the argument that the emphasis on linear and management oriented approaches to change at the neglect of the

contextual environment, is the major reason why change strategies have to this point been relatively unsuccessful.

However, the picture is not that bleak. Despite the dominance of these models of change, there are others which are ecologically more sensitive. Argyris' (1970) Intervention Theory and Method approach, Lippitt's (1958, 1978) Planned Change Model, the research of Berman and McLaughlin (1975, 1977), Emrick and Peterson (1977), Fullan, Miles and Taylor (1978, 1980), and the writings of Schmuck and Runkel (e.g., Runkel, Schmuck, Arends & Francisco, 1978), all point in a direction more compatible with the theme of this study. They are appreciative of the environment in which they intervene, and demonstrate a concern for developing a capacity for change within the client system rather than the adoption per se of a specific approach. Lippitt et al. (1978) regards these as being Adaptive models of change as compared with the Adoption models previously described.

This discussion of the change literature has served to illuminate the current orientations to change from a theoretical perspective. The next section describes the same process from the institution's perspective (i.e., how the actors actually use change, rather than how a researcher or academic thinks they should use it) and interestingly the shift here also is towards facilitating an adaptive capacity.

Current Orientations to Change

In a recent review of the literature on change in higher education, Dill and Friedman (1979) note a shifting in focus of studies in this area. From an original concern with the development of new and

innovative institutions in the 1960s, the emphasis changed during the early 1970s to the broader study of innovation as a concept. More recently, because of circumstances with which we are all too familiar (i.e., budgetary restraints, declining enrolments, and changing societal demands), the focus has altered again to an orientation which concentrates on institutional development or self-renewal.

The emphasis on institutional development is of course complementary to the theme of the study and is reflected in a number of recent works[2] and a number of differing initiatives by individual institutions[3]. There are three activities that are usually regarded as coming under the heading of institutional development. These are, to use Gaff's (1975) terms: faculty development, instructional development, and organization development. These are not exclusive or discrete categories, but represent general approaches to differing aspects of the institution's operation. In practice these activities are rarely carried out in their pure state, but are used interchangeably and eclectically. Before explaining what this means in more detail it may be useful to look at the reasons for this current emphasis.

As Bergquist and Shoemaker (1976) suggest, there are two conflicting and perhaps incompatible forces operating on higher education at present. The first is the steady reduction of natural resources which

---

2. See among others Sikes, Schlesinger and Seashore, 1974; Lindquist, 1974; Martorana and Kuhns, 1975; Gaff, 1975; Bergquist and Shoemaker, 1976; Riley and Baldridge, 1977; and Giacquinta, 1979.

3. See for example the papers presented at the International Movement Towards Educational Change (IMTEC) Seminar, which focused on the Institutional Response to Change, Banff Alberta, December 1978.

is making the Western vision of sustained economic growth unrealistic, and which gives credence to the scenario that Illich (1971) put forward in Deschooling Society. Faced with low or even negative financial growth, it becomes increasingly difficult to sustain the educational machine at present levels (Richman & Farmer, 1974). This tendency has been exacerbated by recent changes in the demographic balance which has resulted in declining enrolments, and in some countries (e.g., the United Kingdom) swingeing cuts in public expenditure on education. This has other implications, but for the purposes of the present argument it means that higher education is increasingly being faced with reduced budgets, and a reduction in personnel.

This scenario of economic decline must be set against a social milieu in which there is an enormity of social change. Increasing emphasis is being placed on educational institutions to be responsive to such changes, and even to be in the vanguard of implementing them. This demand requires a response by educators different to their traditional role. Instead of having a curriculum which is content-oriented, the requirement now is for one that is process-oriented; so that students can acquire skills applicable to changing social conditions, rather than knowledge relevant to outdated systems (Bergquist & Shoemaker, 1976).

This, then, is the dilemma; on the one hand there are scarce resources, and on the other a demand for a radically different type of product—an almost classic catch-22 situation. Dill and Friedman, however, have urged us toward a more effective utilization of

institutional resources. So a technology has emerged to facilitate that; it appears with labels such as self study, faculty renewal, institutional development, organization development, and so on.

This purposeful attempt at altering structures in the face of environmental forces is of course a type of change, and depending on its object can either be typified as purposive or innovative, most probably the former unless it includes the introduction of a technological package.

Implications of Current Emphasis

What does this current emphasis mean in practice? In simple terms the literature quoted above suggests that the institution takes responsibility for itself and reacts to the unique interrelation of forces acting upon it. This implies utilizing the resources within the institution towards an articulated vision of the future, which is sometimes facilitated by external consultants. The overarching characteristic of these efforts is that they are developmental and follow a generic model of action research which has a number of well-defined stages. These stages generally include i) assessment, ii) the definition of goals, iii) the formulation of a program, iv) production, v) field testing and revision, vi) implementation, and vii) monitoring and evaluation. This crude oversimplification does little justice to the wealth of material contained in the cited works, but does capture the sense of self-determination that characterizes these writings.

It should also be added that the range of activities that fit into this developmental model are usually focused either on the faculty

as a group of individuals, the program, or the faculty as an organization, hence the terms faculty development, program development and organization development. This characterization of change in higher education has four aspects. First, the contemporary literature on change in higher education focuses on attempts to improve and strengthen the individual institution from within, in the face of outside pressure. Second, such self-study efforts are usually directed at faculty renewal, program development and OD, and given the autonomy of individual faculties this usually occurs at faculty rather than university level. Thirdly, change efforts follow a linear development pattern. And fourth, change occurs as the result of environmental pressure.

The disquieting thing about describing this trend is that although the literature[4] adequately describes these approaches it gives few examples of them working in practice. These ideas have had very little negotiation with empirical reality. Why then is there a plethora of description but little report of concerted action, and even less attempt to generate theory? There are two reasons for this. The first is external pressure. The influence of societal forces on higher education has just been mentioned, and at present these forces are (in some instances) so great that they either paralyze the institution or force it into a crisis response mode. This point is taken up later in the chapter in reference to the vulnerability of TTIs. The second reason has to do with the nature of the institutions themselves; they are just not able to change, and this is the theme of the next section.

---

4. See Sikes et al., 1974; Gaff, 1975; Martorana and Kuhns, 1975; Bergquist and Shoemaker, 1976.

Barriers to Change

The literature suggests a number of barriers to change in higher education, and it is instructive to review these here. In the literature on change in higher education, there is general agreement that the barriers to change occur at three different levels.

At the most abstract level it appears that there is an institutional inertia against change (Baldridge, 1971; Boyer & Crockett, 1973; Lindquist, 1974; Sikes et al., 1974). Universities, by nature, appear to favour the status quo; that to them change is a threatening phenomenon, because by nature they are conserving and conservative. Universities have traditionally provided a stabilizing force in Western society, and this historical legacy is one which they appear willing and capable of maintaining. Despite periods of enormous social change, and occasions of rending violence (e.g., 1848 and 1968), the university with its traditional resilience emerges battle-scarred but basically unchanged.

At a more concrete level, the structure and composition of the university militates against change. Higher education is widely differentiated and highly pluralistic (Evans, 1968; Sikes et al., 1974), and this together with a lack of accountability (Richman & Farmer, 1974), tend to make it amorphous in the face of pressure.

Finally, a wide body of literature suggests that individual professors are in general, politically and socially conservative and intellectually chauvinistic (Evans, 1968; Bernstein, 1971). What this means in practice is that they are as a group not very change oriented, and that they give their allegiance to a discipline rather than to an

institution. This vertical, as opposed to horizontal, integration means that most institutions of higher education are composed of sub-groups socialized into widely differing sets of norms. Moreover, the norm of professional autonomy is buttressed by the reward structure of universities which prizes excellence in scholarship.

Obviously there is a wide variation of barriers within these three levels, and they will reemerge as the study progresses, for this is a continuing theme. What is of more interest at this stage is to ask a more profound question--why are there barriers to change in higher education and what causes them?

Nature of Educational Organizations

Marvin Weisbord (1978) addresses this question directly in his paper, "Input versus Ouput-Focused Organizations." He defines an Output organization as one which has the following features: a) formal authority, b) concrete goals, c) task interdependence and d) performance measures. He says that these organizations,

> Are organized around consumer requirements, which determine productivity for the organization as a whole. One person's customers are everybody's customers. (p. 19)

Because of these features such organizations are capable of responding quickly to their environment. As Weisbord continues,

> Not only can production be measured, it is quickly evaluated, for consumer feedback is relatively swift and pointed. Output-focused organizations know what they have to do to survive. This leads to policy, procedure, close supervision, and so on, in an effort to insure the proper result. (p. 20)

He further argues that these characteristics make such organizations more

amenable to OD type interventions, because the incentives for efficiency are obvious and material. The obvious example of this type of organization is the corporate manufacturing industry.

He contrasts this type of organization with input-focused systems which he characterizes as having multiple or unclear goals. They are institutions,

> Where measurement of results is difficult or impossible, where evaluation is a personal and highly controversial matter, where administrative action is seen as capricious and irrelevant, and where there is no obvious correlation between working together and getting the job done. (p. 21)

He further maintains that,

> The critical characteristic of such systems (a university is a prime example) is that the main producers (professors for instance) derive major rewards, and therefore self-esteem, from sources external to the organization itself. Usually, these people practice a form of expertise that can be applied in toto without the assistance of others. Collaboration is possible, but not essential, for tasks such as teaching, research, consultation, design, therapy, and the like. (p. 21)

Weisbord is not the first person to distinguish between industrial and educational organizations but his contrast is well taken. Particularly the point that the major systematic evaluations occur before the process itself commences in input organizations and after the process has been completed in output organizations.

Others have made more systematic analyses of the organizational characteristics of institutions of higher education. J. Victor Baldridge, in a recent book (with Gary Riley, 1977) maintains that academic organizations have a number of distinguishing characteristics, viz., goal ambiguity, which means a plurality of goals, some of which

are highly contentious; client service, which implies that they are "people processing" institutions; problematic technology, which is the result of having a disparate clientele (for if universities do not know clearly what they are trying to do, they often do not know how to do it either); professionalism, which implies that employees demand autonomy and perform a broad range of tasks; and finally environmental vulnerability, which is making universities increasingly more accountable and subject to external demands. Baldridge continues to argue that these characteristics radically affect the governance procedures acting on higher education. This type of organizational analysis of higher education institutions finds much support in the literature (Richman & Farmer, 1974; Sikes et al., 1974; Gaff, 1975; Martorana & Kuhns, 1975; Bergquist & Shoemaker, 1976).

Defining Characteristics of Educational Organizations

Drawing the distinctions between corporate and academic institutions as complex organizations is only the first step in the argument. Because there are also substantive differences between academic organizations in general (which is the level at which the argument has been conducted so far) and educational organizations in particular. One can also distinguish between schools and TTIs as organizations. Before these particular differences are examined the defining characteristics of educational organizations are discussed.

Although the literature on educational organizations is not extensive there is a substantial degree of consensus amongst those who have written on the subject. The major papers in the area (see amongst others

Bidwell, 1965; Miles, 1967, 1975; Schmuck & Miles, 1971; Meyer, 1975; Seiber, 1975; Weick, 1976; Meyer & Rowan, 1977) have variously described educational organizations as being "loosely coupled" and "organizationally unhealthy." "Loose coupling" is a phrase which was popularized by Weick (1976), although originally coined by March (see March & Olson quoted in Meyer, 1975). Weick summarizes what is meant by loose coupling like this:

> The idea of loose coupling is evoked when people have a variety of situations in mind. For example, when people describe loosely coupled systems they are often referring to (1) slack times--time when there is an excessive amount of resources relative to demands; (2) occasions when any one of several means will produce the same end; (3) richly connected networks in which influence is slow to spread and/or is weak while spreading; (4) a relative lack of coordination, slow coordination or coordination that is dampened as it moves through a system; (5) a relative absence of regulations; (6) planned unresponsiveness; (7) actual casual independence; (8) poor observational capabilities on the part of a viewer; (9) infrequent inspection of activities within the system; (10) decentralization; (11) delegation of discretion; (12) the absence of linkages that should be present based on some theory--for example, in educational organizations the expected feedback linkages from outcome back to inputs is often nonexistent; (13) the observation that an organization's structure is not conterminous with its activity; (14) those occasions when no matter what you do things always come out the same--for instance, despite all kinds of changes in curriculum, materials, groupings, and so forth the outcomes in an educational situation remain the same; and (15) curricula or courses in educational organizations for which there are few prerequisites--the longer the string of prerequisites, the tighter the coupling. (p. 5)

Weick is quite correct in describing as evocative his conceptualization of loose coupling. However, his conceptualization is more heuristic than practical; the concept is too amorphous in its present form to allow operationalization. As description it is fine, as a guide to

action it is lacking.

This is not the case with Miles' (1975) seminal paper on "Planned Change and Organizational Health: Figure and Ground." Although some 15 years old (first published in 1964, it was reprinted in Baldridge & Deal, 1975), it is one of those rare papers that have been confirmed and enhanced by subsequent research. In it Miles explores the concept of organization health in some detail. He defines it as,

> A set of fairly durable second-order system properties, which tend to transcend short-run effectiveness. A healthy organization in this sense not only survives in its environment, but continues to cope adequately over the long haul, and continuously develops and extends its surviving and coping abilities. (p. 231)

He articulates 10 dimensions of organizational health, which are interactive and interdependent and characterize a multiple-criterion approach to the assessment of health. These dimensions fall into three categories: task management, maintenance functions and problem-solving capacity. In the first category are such concerns as goal focus, communication adequacy and optimal power equalization. In the second are resource utilization, cohesiveness and morale; with innovativeness, autonomy, adaptation and problem-solving adequacy comprising the third.

This gives a fairly clear picture of what is meant by a healthy organization. It is one that is structurally sound insofar as its goals are well articulated, where communication channels are well distributed and free flowing, and where the power is finely balanced. Internally it is operating harmoniously, near full capacity with little strain and the whole operation is conceived as being adaptive, dynamic with a capacity for problem solving.

Not only does Miles sketch out the parameters of the concept and operationalize it into its constituent components, he also applies the idea to educational systems and suggests a technology for the induction of organizational health. In doing this he identifies seven properties of educational organizations which predispose them towards ill health, viz.,

Goal Ambiguity
Input Variability
Role Performance Invisibility
Low Interdependence
Vulnerability
Lay/Professional Control Problems
and, Low Technological Innovation

These characteristics mesh well with others in the literature. Sieber (1975) for example, characterizes schools as organizations as being vulnerable, having a quasi-professional image, as having diffuse goals, and as lacking coordination and control. Similarly Meyer (1975) describes educational organizations as having little interdependence, little authority to create standards, no technological consensus, a lack of measure of efficiency and role performance isolation.

Despite Stenhouse's (1975) wry comment that Miles' dimensions are "relatively uncontaminated by contact with empirical reality" (p. 173), Miles' conception of the school as a social system and its constituent organizational variables can be taken as a reasonably accurate and established analysis.

One further distinction needs be made. Most of the work done on the structure of educational organizations has focused on the school,

whereas the focus of this study is on TTIs. Although the two types of institutions share generic characteristics, there are certain differences which need articulation. To the present time very little work has been done on TTIs per se, so what follows must be regarded as being a tentative analysis.

In previous papers (Hopkins, 1979 a, b, 1980 b) I suggested that TTIs vary organizationally from schools in a number of different ways. Specifically, they are more pluralistic, individual faculty members have more autonomy, and the decision-making process and authority structure is more horizontal. Diversity within a faculty is encouraged; few professors genuinely collaborate or work together, or even know each other's work except casually. This tendency is buttressed by a norm of autonomy; the fact that there are, in practice, few controls on what an individual professor teaches, or researches is a highly prized aspect of academic life. It is a tendency that has increased in the last decade, since TTIs have become almost universally housed in the university. Given this, it is not surprising that the decision-making process and the authority structure is horizontal. Faculty meetings tend to concentrate on mundane, pedestrian day-to-day issues and rarely deal effectively with major policy issues. Consensus is difficult to achieve. It requires a dynamic and highly politicized group of faculty to achieve anything more than a minor alteration in a faculty's program. Deans tend to be less leaders than managers, and operate on a holding pattern rather than vigorously pursuing an articulated goal or vision of what teacher education should be like.

This has serious repercussions for the institution as an organization. Because of the pluralism, goals tend to be diverse and amorphous. The process of implementation becomes increasingly difficult because faculty tend not to work together or communicate on substantive issues. The resulting climate is superficially friendly, only because the norm of autonomy precludes, in a majority of cases, communication at anything but a social level.

All these characteristics Weisbord (1978) would argue stem from the fact that TTIs are input organizations. But it is more than that, because schools are input organizations also, but are less pluralistic and autonomous than TTIs and are organizationally far more hierarchical. This difference occurs because TTIs are hybrid organizations; neither a "pure" university faculty, nor a normal school, and as a result they experience serious role conflict. Consequently they display characteristics of both universities and schools, and it is this which may account for their diffident quasi-professionalism (Sieber, 1975). Certainly Pedersen (1974) has argued that TTIs are characterized by their lack of conceptualization and the absence of rational structure.

A Capacity for Change in TTIs

The implications of this characterization are far-reaching; to use Miles' terminology, TTIs have symptoms of organizational ill health. But what does it mean to be healthy? Obviously there are certain parameters operating on TTIs which affect their structure and which cannot be changed. Almost by definition educational institutions are vulnerable, have low technological investment, and have input variability. So, given these operating conditions and assuming that TTIs can

exhibit degress of healthiness, what is the organizational feature that determines effective functioning? The literature suggests that this implies an effective problem-solving capacity. It is the closest to a necessary and sufficient condition that we have in regards to organizational health (Riley & Baldridge, 1977; Runkel et al., 1978).

There are four components to a problem-solving capacity.

The first is a capacity for diagnosis. The system is responsive to a problem cue and begins to analyze the problematic situation. It presupposes adequate communication channels, to allow the problem first to be noticed, and goal clarity without which there would not even be a consensus on whether the problem exists. It also implies a reflexive ability to be self analytic, a notion akin to Miles' dimensions of adaptation and cohesiveness.

The second component is a resource capacity; the ability to proactively seize resources and bring them to bear on the problem at hand. It necessitates having an adaptive subsystem which can utilize resources and the ability to reach outside the system to take advantage of external supports. There are obvious corollaries here to Miles' notion of resource utilization.

The third aspect of a problem-solving capacity refers to the ability to mobilize, energize, and bring together. Having diagnosed and then mobilized technological resources, it is the ability to create meaningful action. It involves building ownership and commitment to problem solving, bringing those members closest to implementation together, creating temporary subsystems and executing problem-solving tasks. To effectively do this requires the quality Miles referred to under

innovativeness. It also requires good morale and climate within the organization, as well as an administrative structure which encourages forceful action across boundaries, and the creation of temporary systems.

Finally, a problem-solving capacity involves the ability to monitor, to stand back and assess the process. In a healthy organization this is a norm and subsumes the three steps just described. This reflects Miles' dimensions of problem-solving adequacy and autonomy--the ability to act independently and decisively.

The argument is that a problem-solving capacity can, in a general way, be equated with organizational health. All of Miles' dimensions fit with the notion of problem solving described above. In practical terms a problem-solving capacity in TTIs involves more clarity on goals, enhanced communication patterns, and more systematic problem-solving and decision-making procedures. In addition, the empirical research on Canadian TTIs[5] suggested that climate and the ability to implement were important factors associated with the possibility of change in TTIs. This gives a list of six dimensions which provide an operational definition of the capacity of a TTI to change. These are shown in Figure 2:2.

Insert Figure 2:2 about here

Change in TTIs

If these dimensions reflect the capacity of a TTI to change, what is it that causes them to change? As I suggested in a previous paper (Hopkins, 1979b), change in contemporary Canadian teacher education has

5. See Wideen, Hopkins and Fullan, 1980, and Fullan, Wideen, and Hopkins, forthcoming.

- Communication
- Goals
- Problem Solving
- Decision Making
- Climate
- Implementation

Figure 2:2. Dimensions which comprise a capacity for change in teacher training institutions.

as its stimulus external pressures. We have already seen that TTIs are extremely vulnerable organizations; they are sensitive to economic and demographic changes, could be structurally changed by government fiat or ministerial policy, they are responsible to the central university administration, their effectiveness can be conditioned by school boards and teachers federations, and they are open to criticism from informal bodies such as trustees, community representatives and parents. These are all very real influences, so much so that after a careful analysis, there was no evidence in the data collected for this study of any significant changes in Canadian TTIs which did not emanate from external factors. This empirical finding is a consistent theme in the literature. From the first writings on educational change, as Getzels (1970, pp. 69-70) points out, both the theoretical and empirical evidence points to the fact that change in educational organizations is induced from the outside. This theme is reiterated in contemporary writings as Giacquinta (1979, p. 19) remarks in his recent chapter on "Organizational Change in Schools of Education": "Change is a necessary, often bitter pill taken for the sake of survival."

However, it would be naive to imply a simple linear progression, because any proposed change to be effectively implemented has to be mediated through the receiving institution, and this is a very complex process. This is the point made early in the first chapter, that although the appearance of change can be achieved relatively easily (e.g., through legislative fiat), the institutionalization of that change is much more difficult to effect.

Dalin (1978) argues that we need to view educational change in a more systematic way. We have failed in the past to regard educational institutions as part of a complex social system, and that failure to recognize the nexus of interrelationships between the educational system and its environment has made change very difficult. Change tends to occur through mutual adaptation, to use the phrase of the Rand Study authors (Berman & McLaughlin, 1975, 1977), which implies that the institution must be engaged in a continuing dialectic with forces outside as well as being sensitive to the unique set of circumstances within.

The point is that in virtually every instance of successful change some form of mutual adaptation has to occur. This applies to the individual, the internal characteristics of the institution and to the environmental demands. Emrick and Peterson (1978) made this same point in their recent synthesis of five major studies of educational change when they said,

> From these study findings it appears there are two separate but parallel dimensions to this change process: a personal dimension which involves the change process occurring within individuals (cognitive, behavioural, affective) as they acquire and make use of new knowledge, and a systemic dimension, which involves the concomitant changes occurring in the user environment (organizational, social, political). Furthermore, these separate but parallel processes appear to unfold as interdependent stages, both within and across dimensions. (p. 53)

The recent experience in British TTIs gives us startling evidence of this. In the face of extreme external pressure, the teacher education colleges had to adapt or perish. The previously mentioned case studies presented to the 1978 IMTEC conference on "Institutional

Responses to Declining Enrolment in Teacher Education" gave participants a good understanding of the process. In particular, the papers by Davies (1978) and Rogers (1978) clearly demonstrated how two British TTIs (Bangor and Bulmershe) successfully responded to external pressure by capitalizing on internal tendencies and by being reflexive to future demands.

In a similar way, in the early part of this decade many Canadian TTIs faced enormous pressure from governments, teachers' unions, schools, and the public to expand the internship or practicum component of their program. That they did so is evidence of the power of external forces, the way in which it was done reflects the internal characteristics of the institution.

This is the other side of the mutual adaptation coin; change must be moderated through and internalized by the user. Unfortunately this raises problems when we consider the organizational characteristics of TTIs. For as we have seen these characteristics tend to militate against change, and this brings the argument of the chapter full circle—that any change effort needs to affect both the object and process of changing.

In order to help facilitate mutual adaptation, an interventionist strategy needs to serve the double purpose of helping the institution identify and solve the particular problems facing it, and also of affecting the process variables mentioned above.

This discussion is summarized in Figure 2:3. Simply put, the argument is that in general the demand for change occurs from environmental

Insert Figure 2:3 about here

pressure which is often mitigated by the internal characteristics of the institution (diagram A). This stalemate necessitates an interventionist strategy, the components of which are defined by these contextual variables. The task component gives information on external demands and internal functioning, and the process (OD) component provides a technology for problem solving and changing norms (diagram B). The whole process can be regarded as a form of mutual adaptation, facilitated by an interventionist strategy comprising task and process elements and resulting in an enhanced capacity for change.

The argument of this chapter has been that TTIs suffer from a lack of goal clarity, have poor communication, possess norms which inhibit effective decision making and implementation, and in general have a poor problem-solving capacity. It has also been argued that to be effective any change effort in teacher education must take into account both the process and task elements of change. Further, that a capacity to change in TTIs is predicated on the positive poles of the dimensions associated with communications, goals, problem solving, decision making, climate and implementation. How this capacity can be induced is the subject of the next chapter.

THE CHANGE PROCESS IN TEACHER EDUCATION

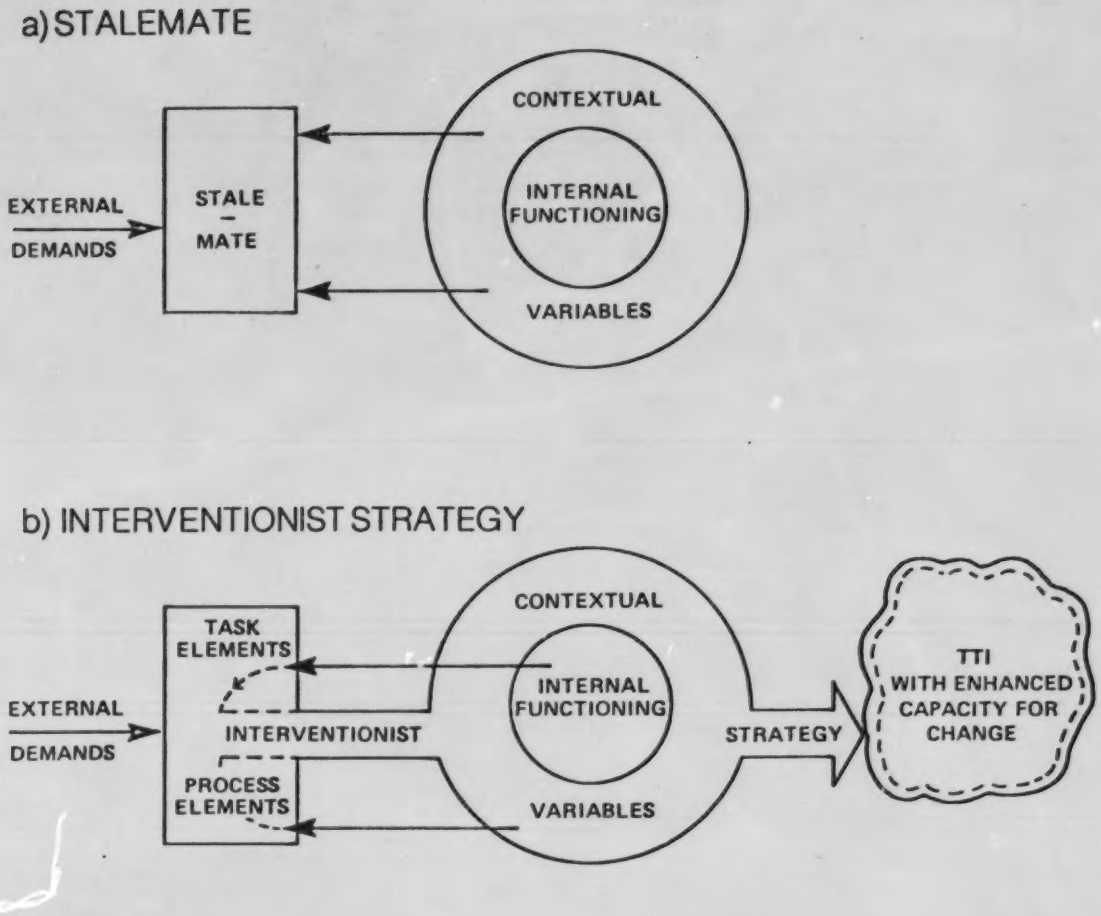

Figure 2:3. The change process in teacher education.

CHAPTER THREE

Organization Development and Survey Feedback

One of the major conclusions to be drawn from the previous chapter is that a capacity for change in TTIs is reflected in its capacity for problem solving. The purpose of this chapter is to critically discuss and develop a strategy for institutionalizing a problem-solving capacity in TTIs. In this chapter the nature of organization development is outlined, and its role in educational organizations, specifically schools and institutions of higher education. Then there is a critical discussion of the technology of organization development, in particular survey feedback. Finally, the survey feedback approach is related to the model of intervention used in the study.

An Overview of Organization Development

When writing on "Faculty Renewal", Gaff (1975) identified organization development as an approach that not only had merits of its own but was one that overcame some of the deficiencies of his other two espoused renewal strategies--faculty and instructional development. This assertion is partly explained when one realizes that OD (as defined by French, Bell & Zawacki, 1978) is,

> An effort to improve an organization's problem solving and renewal process, particularly through a more effective and collaborative management of organization culture—with special emphasis on the culture of formal work teams—with the assistance of a change agent, or catalyst, and the use of the theory and technology of applied behavioural science. (p. 1)

From this definition one notices the suitability of OD for the type of intervention described in the previous chapter.

One can trace the development of OD back to the social psychological writings of Kurt Lewin (1947) and the beginnings of the National Training Laboratory (NTL) in the immediate postwar period. From the early experimentation with group dynamics, through the emergence of T-Groups, McGregor's work with Union Carbide in 1957 (McGregor, 1960), and the ESSO experiment in the late 1950s, OD began to develop a distinctive character, with an attendant technology and philosophy.

Since that time OD has continued to mature, with the establishment in 1964 of the OD network of the NTL, and in 1968 of an OD Division of the American Society of Training and Development. This was followed in 1971 by an OD Division of the Academy of Management. It was estimated by French, Bell and Zawacki (1978) that by the early 1970s these groups had a collective membership of 1,250. More recently Fullan, Miles and Taylor (1978) estimated that there were 357 OD consultants active in school-based OD alone.

Despite this growth OD still assumes the characteristics of adolescence.[6] It has not yet achieved a sound intellectual base, its literature is variable and some of its practitioners flirt on the boundaries of mysticism and psychological self help. Bowers (1976), a major contributor to a theory of survey feedback, has described OD as superficial. Even such a staunch proponent of OD as W. W. Burke seemed ambivalent about the state and future of OD in his recent book, The Cutting Edge (chap. 1, 1978). The fluidity of technology, an eclectic methodology and the lack of a unifying theory add credence to Kahn's (1974) claim

6. These comments may not be appropriate to OD in education. A recent review by Schmuck (in press) gives evidence of an increasing maturity in this particular area.

that OD is only "a convenient label for a variety of activities."

So what is it that hangs that variety of activities together? The definition of French and Bell has already been noted, more pithy is that of Schmuck and Miles (1971) who defined OD as,

> a planned and sustained effort to apply behavioural science for system improvement, using reflexive self-analytic methods.

More recently Fullan, Miles and Taylor (1978), in their recent review of the literature reworked and expanded on this classic definition.

> Our present inclination is toward a revised definition of this sort:
>
> Organization development in school districts is a coherent, systematically-planned, sustained effort at system self-study and improvement, focusing explicitly on change in formal and informal procedures, processes, norms or structures, using behavioural science concepts. The goals of OD include both the quality of life of individuals as well as improving organizational functioning and performance.

The revisions should be noted. The requirement of coherence and systematic planning may be too normative, but does serve to distinguish OD from haphazard efforts casually labelled "OD", as increasingly seems to be the case in our experience. The emphasis on explicitness indicates that OD deals directly with organizational phenomena and their alteration, rather than inducing changes indirectly through some other vehicle. The inclusion of both formal and informal organizational issues makes for more thoroughness, and excludes simply "official" rearrangements. The emphasis on quality of life of individuals and on organizational performance highlights the dual goal of OD and potential problems in pursuing these goals in a balanced value congruent way. The permissive inclusion of educational content acknowledges that such work is a primary task of school districts, but indicates that curriculum-focused work is not necessarily OD in the absence of the preceding qualifiers. The label "sustained" is perhaps best left unspecified, though the 18-month figure is probably useful as a guide, given the year-by-year planning often characteristic of school districts. (Vol. 1, p. 14)

In a forthcoming book (Dalin & Rust, in press), which outlines an approach to institutional development within schools similar to that described in this study, Organization Development is ascribed five major characteristics.

1. Organization Development is an activity which relies on concepts and research findings from the behavioural sciences, primarily from social psychology.

2. The purpose of Organization Development is to improve the health and functioning of organizations. Organization Development is holistic and systemic in so far as it concentrates on the organization rather than isolated individuals. However, this is in the belief that individuals and their quality of life are strengthened through their own interactions and through organizational health.

3. OD is a self-correcting, self-renewing process, undertaken by the members of an organization, although external support usually exists in the form of consultants or self assessment instruments.

4. OD involves a deliberate set of steps including self assessment, diagnosis, problem solving, planning and action phases. These are conceptually quasi-linear in nature, but aspects of every phase might be involved at any one point in the process.

5. OD is a continuous or long-term process rather than a one-shot exercise or a brief episode in the life of an institution.

To these five characteristics I would add a sixth.

6. OD is essentially democratic in so far as it skirts hierarchical structures and listens to the totality of the population, and in

so doing develops ownership and internal commitment towards the organization from individuals within it. This characteristic also manifests itself during the problem-solving phase of an OD effort, with the creation of temporary subsystems (see Miles, 1964) which are ad hoc, vertical and noninstitutional in character.

In summary, Organization Development activities can build within an organization more effective communication patterns, goal clarity, ways of working with conflicts, meetings, problem-solving procedures, a climate of trust in decision making, and increased morale, all with the aim of making the individual's contribution within the organization more effective.

OD and Education

It will be noticed that this discussion of the nature of OD has been drawn from two different sources. The first is from the literature on OD per se which in general refers to its use in industrial organizations (Franklin, 1978), and second from the literature on OD in education, particularly in schools. This is an important point to note because the issue of OD in education is a contentious one. Weisbord (1978),in the paper referred to in the previous chapter, strongly maintains that educational institutions are not good candidates for OD interventions. He distinguishes between output and input focused systems, citing corporations as examples of the former and universities as the latter. Because the incentives towards joint, rational problem solving are low in input systems they are consequently inappropriate targets for a technology that is predicated on participative and

collaborative strategies. In a similar vein, Derr (1976) argued in his paper, "OD Won't Work in Schools" that the organizational characteristics of schools are incompatible with a number of central OD concepts, for example the survival/crisis orientation of the school environment is contrasted with OD's improvement orientation, and the school's low interdependence is contrasted with OD's systematic orientation. His argument is substantially similar to Weisbord's.

Miles took issue with Derr by pointing out that:

> (a) OD is not properly defined as "collaborative" necessarily, but simply the "sustained, reflexive use of behavioural-science-based efforts to improve a system's functions," whether that functioning is "competitive, negotiative, low-interdependent or closely collaborative"; (b) personality variables such as "civil service mentality" are less relevant to OD diffusion than system-structural variables; (c) OD is as often pursued for reasons such as perceived pain, injustice, or system stress as for goal achievement failures as such; (d) "anatomy is not destiny" (in the sense that certain properties of schools doom OD to failure).
>
> (quoted in Fullan, Miles & Taylor, 1980, p. 130)

My reply to these critics would be that it is precisely because educational organizations do exhibit characteristics such as goal diffuseness, noncompetitiveness, decentralization, suboptimal technical capacity, and have coordination and boundary management problems, that make them prime targets for OD intervention. The technology of OD is designed specifically to ameliorate these types of conditions and what Derr and Weisbord fail to realize is that institutions which exhibit a certain form of organizational pathology will by definition not fit within the conceptual norm of a healthy organization. This does not

necessarily negate the effectiveness of a technology designed to remedy those specific pathological symptoms.

This discussion has been sufficient to outline the nature and purpose of OD; it is now necessary to focus more specifically on the technological capacity of the method. Before that is done, however, there is a need to clarify and sharpen the distinction between the use of OD in schools, and its use in university or TTI settings.

OD in Schools

It was Miles who initiated OD into education with the publication of his seminal book, Innovation in Education in 1964. Indeed, it was he who in 1963 began the first systematic testing of OD approaches in schools. Later Blake and Mouton (1968) developed and disseminated an OD package to schools which focused on "a two-dimensional view of leadership and group behaviour oriented toward both production and people" (Schmuck & Miles, 1971, p. 5). The publication of OD in Schools by Schmuck and Miles in 1971 was the first mature expression of the impact of OD in education. In a thorough survey done specifically for that book the authors identified 187 practitioners who had carried out OD work with schools lasting a year or more, but cited only a few school districts with a capacity for instituting sustained OD work. Almost a decade later in their research report, "OD in Schools: The State of the Art", Fullan, Miles and Taylor (1978) identified 357 OD consultants and 76 school districts in Canada and the U. S. where sustained OD efforts had occurred. Fullan and Miles (1978) concluded on the basis of this evidence that OD in schools had "diffused to a larger

extent than we and others had realized" (p. 173).

Even as brief a review of OD in schools as this would be incomplete without a mention of the pioneering work done by Schmuck and Runkel and their associates at the University of Oregon. Their work has given OD in education a theoretical and empirical base of some class and stature. Their efforts at team building and developing cadres of OD specialists in school districts (Runkel et al., 1980), the publication of their practical Handbooks for OD in schools (Schmuck et al., 1972, 1977) and more recently their theoretical monograph, Transforming the School's Capacity for Problem Solving (Runkel et al., 1978), are of most significance. Schmuck (in press) in a forthcoming review, "Organization Development for the 80s" provides a valuable perspective on the development of OD in education, and with the articulation of a research agenda in that paper provides a valuable direction for its continuing development.

OD in Higher Education

From the perspective of this study, it is to be regretted that no comparable body of work exists on higher education; the literature on OD in higher education is pitifully small. Apart from some studies on health care institutions (e.g., Peters & McKenna, 1977; Nadler, 1977), and the Jossey-Bass series on higher education (which is only peripherally involved in OD anyway), only seven studies which specifically applied OD to university settings were identified (Marguilies, 1972; Callahan & Lake, 1973; Boyer & Crockett, 1973; Gaff, 1975; Sikes et al., 1975; Bennis, 1975; Giacquinta, 1979). There is of course J. Victor

Baldridge's work (Baldridge, 1971, 1980; Baldridge & Deal, 1975; Riley & Baldridge, 1977), but he is concerned more with governance issues in universities and change strategies rather than OD per se.

Gaff (1975) admits in his chapter on OD by quoting Boyer (1974) that the state of the art of OD in higher education settings is quite primitive--and the examples of OD projects he cites are limited and uneven. One wonders if they can be called OD, for he only cites examples under the following headings: utilizing work groups, training campus leaders, providing training in interpersonal relations, facilitating faculty development and forming institutional policies. From this list it appears that Gaff has lumped together a number of disconnected strategies under a label which sounds appropriate but which is, in reality, only applicable to some of these activities.

Similarly Sikes, Schlesinger and Seashore (1974), in their book Renewing Higher Education from Within, refer almost exclusively to their conception of campus change teams which they developed as a result of a five-year NTL project. They maintained that teams using a collaborative action research strategy could best improve the quality of campus life for themselves and for others. Objectives of such teams included improving student services, increasing the relevance of a psychology program, improving instruction and changing a grading system. Whilst some of these activities and some of the techniques involved could be called OD, the amount of variability involved makes one reluctant to classify their work solely within that domain.

The paper by Marguilies (1972) and the journal issue on OD in

Higher Education by Boyer and Crockett (1973) report individual (and in most cases incomplete) case studies of OD efforts in university departments. Marguilies had some initial success in improving communication in a relatively small university college. Bolton and Boyer (1973) described consultation and research efforts with four academic department seeking to improve their organizational effectiveness. Plovnick et al. (1973) described an experimental workshop and Jenks (1973) recounted his experience as a self-appointed internal change agent. Crockett (1973) described the role of the staff institute in facilitating change in higher education. Although interesting, this collection of papers could by no stretch of the imagination be said to form an empirical base on which to generate theory or even point to future directions for OD in higher education. Of more use for this purpose is Bennis' (1975) paper, "Who Sank the Yellow Submarine", in which he reflects on the failure of a broad spectrum attempt to initiate organizational change in a university (not specifically OD) and in so doing draws a number of lessons to be learned and guidelines for future efforts.

The chapter by Giacquinta (1979) again is only peripherally involved with OD. However, he is more precise than Gaff in outlining the potential of OD as a change strategy in higher education. He discusses the role of OD as part of an intervention design for change in schools of education, but cites nothing in the way of empirical studies on OD in higher education.

All this, of course, tells us very little, except perhaps that there is some potential utility in OD approaches to higher education.

Whatever does occur will be in the nature of pioneering work because there is very little precedent to guide practice. After this diversion into a discussion of OD in educational settings we need to return to the mainstream--a discussion and evaluation of the technology of OD.

The Technology of OD

It is perhaps indicative of the current state of OD that one has a better idea of what OD is, when one knows what it does or at least what methods it employs to do what it does. This use of tautology is deliberate because there is insufficient operational clarity as to what OD actually is and does. This is problematic to the extent that OD purports to be known as a discipline or coherent area of study, and because its practitioners justify their activity in relation to a set body of theory. This becomes less of a problem in specific applications (viz., OD in education, where, as has been noted above, a coherent body of theory, practice, ethics and empirical evidence has been built up which refers to those particular activities rather than the field of OD as a whole).

Miles and Schmuck (1971) specify eight modes of intervention which comprise the technology of OD. These are:

> 1. Training or education: procedures involving direct teaching or experience-based learning. Such technologies as lectures, exercises, simulations, and T-groups are examples.
>
> 2. Process consultation: watching and aiding ongoing processes and coaching to improve them.
>
> 3. Confrontation: bringing together units of the organization (persons, roles, or groups) which have previously been in poor communication: usually accompanied by supporting data.

4. Data feedback: systematic collection of information, which is then reported back to appropriate organizational units as a base for diagnosis, problem solving, and planning.

5. Problem solving: meetings essentially focusing on problem identification, diagnosis, and solution invention and implementation.

6. Plan making: activity focused primarily on planning and goal setting to replot the organization's future.

7. OD task force establishment: setting up ad hoc problem-solving groups or internal teams of specialists to ensure that the organization solves problems and carries out plans continuously.

8. Technostructural activity: action which has as its prime focus the alteration of the organization's structure, work flow, and means of accomplishing tasks. (p. 9)

Subsequent work has tended to be more parsimonious in its interpretation of OD technology. Friedlander and Brown (1974) classify OD activity into techno-structural and human processual activity, the latter including survey feedback, team building and intergroup development. Bowers (1973) compared the effectiveness of survey feedback, interpersonal process consultation, task process consultation and laboratory training. Alderfer (1977) refers to team building, survey feedback, structural approaches, environmental interfaces and cognitive development (although he confuses the organizational focus of attention (e.g., teams) and the intervention mode (e.g., survey feedback)).

Marguilies et al. (1977) surveyed the OD literature between 1964 and 1976 and as a consequence categorized the major OD interventions into the technical, management or human systems of organizations, as seen in Figure 3:1.

Insert Figure 3:1 about here

	Intervention	Change Target	Expected Results
Human Systems:	Organization Sensitivity Training	Individuals	Change attitudes and develop interpersonal skills. Change managerial style, improve organizational climate, and increase adaptability.
	Team Building	Work group, organization team	Change and improve team operation, improve problem-solving skills, improve organization effectiveness
	Survey feedback	Total organization and/or organizational subunits	Resolution of specific organization problems, increased involvement of organization members in problem solving, greater commitment to organization.
Technical Systems:	Job Redesign	Technical-task system of the organization	Increased job satisfaction; higher morale; increased productivity, work motivation.
	Sociotechnical	Work system, including task and human elements	Greater effectiveness, improved satisfaction, etc.
Management Systems:	Structural	Organizational structure	Improved and clearer roles, responsibilities; less ambiguity; greater efficiency, improved job satisfaction

Figure 3:1. Categorization of OD interventions (From "Organization Development Techniques: Their Impact on Change" by N. Marguilies, P. L. Wright, and R. W. Scholl, Group and Organization Studies, December 1977, 2(4), 428-448.

This brief review of types of OD interventions is inconclusive in terms of defining an established list of OD interventions. The literature varies in its definitions, but the lists by Miles and Schmuck, and Marguilies give a flavour of the types of intervention associated with OD.

It is also instructive to review those studies which evaluate the effectiveness of different types of OD intervention. The classic paper is Bowers' (1973) "OD Techniques and their Results in 23 Organizations," which reports on the Inter-Company Longitudinal (ICL) study. Although this study has now been criticized on methodological grounds (Golembiewski & Munzenrider, 1975; Marguilies et al., 1977) and the consistency of implementation of the study's "operating characteristics" questioned by Fullan, Miles and Taylor (1980), it remains to the present the most extensive empirical study of the effectiveness of OD interventions. Bowers evaluated the effectiveness of four differing OD interventions (survey feedback, interpersonal process consultation, task process consultation and laboratory training) with two controls (no treatment and data handback) across 23 organizations and against 16 indices of organizational climate (e.g., communication flow, decision making, goal emphasis, leadership support, etc.). Measures were taken before and after treatment with a year's interval between. Survey feedback exhibited statistically significant post test gains on nearly all items, and appeared "the only treatment associated with substantial improvement in the variables of this domain." (1973, p. 21). It may be that Bowers and his team, as staunch advocates of survey feedback (see

Bowers & Franklin, 1972, 1977; Franklin et al., 1977; Hausser et al., 1977), and being solely responsible for the survey feedback interventions tended to employ the "operating characteristics" more consistently and systematically than those who conducted the other interventions. It may also be the case that this was at the expense of "task process consultation", a treatment which contemporary commentators (e.g., Bassin, Gross & Jordan, 1979) regard as being far more effective than the "little or no change" assessment of the ICL study.

Methodological niceties aside, the results of the ICL study have found corroboration in later assessments of OD interventions (Franklin, 1976; Dunn & Swierczek, 1977; Marguilies, Wright & Schoal, 1977; Porras & Berg, 1978). What is interesting in these studies is that none of them are empirical, but are reworkings of studies and data already reported. This is a strange tendency in a field where the existing empirical work has been so roundly criticized for its methodological weakness and conceptual and theoretical haziness (Friedlander & Brown, 1974; Alderfer, 1977; Morrison, 1978; Nicholas, 1979). I can only agree with Fullan et al. (1980) that "the state of theory and research in OD requires considerably more work"; what is also needed are more rigorously designed or richer theory generating accounts of OD interventions which are comparable.

To return to the main theme; the comparative reviews which followed Bowers tended to support his finding that survey feedback, when applied in a systematic way was probably the most effective of the OD technologies. (This judgment may have to be reassessed in future, in light of

recent work on task process consultation and the more hybrid and eclectic forms of OD intervention: see Pasmore & King, 1978). In a reworking of Bowers' original data (with the addition of two extra cases), Franklin (1976) concluded that 11 of the organizations could be characterized as having undergone successful change (based on Bowers' 16 dimensions) and 14 classified as unsuccessful, and that the successful cases were likely to be associated with survey feedback efforts.

The papers by Marguilies et al. (1977), Dunn and Swierczek (1977), and Porras and Berg (1978), are all analytic literature reviews. In general they review studies of OD interventions;[7] 67 in the case of Dunn and Swierczek, 35 by Porras and Berg and 30 by Marguilies and his associates. All three studies are strong in their comments on the quality of OD research: Marguilies et al. (1977):

> Although there is an abundance of literature on OD there is very little research on its effects that can withstand the rigorous testing most social scientists would expect. (p. 428)

Dun and Swierczek (1977) mentioned that effectiveness could not be assessed except,

> on the basis of the point of view of perceivers--who might be sponsors, external evaluators or change agents themselves. (p. 141),

and Porras and Berg (1978) maintain,

> that the overall quality of OD research methodology was spotty . . . Although data analysis procedures are becoming more sophisticated, the vast majority of studies used very simple analytical techniques. (p. 151)

---

7. These are not the only studies of this genre--see Pate et al., 1977; Morrison, 1978; Nicholas, 1979; Porras, 1979; Porras and Patterson, 1979--but these papers are more concerned with the evaluation of OD studies per se rather than assessing the effectiveness of its technology.

These comments make one reluctant to infer too much from their comparison of studies. However, in each of them there is evidence to suggest that survey feedback is an effective (if not the most effective) OD strategy. For instance, Porras and Berg report that there was a substantial increase in the use of survey feedback efforts during the period covered by their research (i.e., pre 1970 studies, N = 15, 20% used survey feedback, post 1970 studies, N = 20, 45% used survey feedback). Marguilies et al. maintain that the six studies they reviewed cannot answer the question of what are the optimal working conditions for survey feedback or who benefits most from the intervention. But they,

> do suggest that survey feedback is a valuable starting point in the diagnostic process and that it does have some positive effects on involvement and satisfaction of participants. (p. 439)

Dunn and Swierczek tested 11 major hypotheses of planned change against the empirical evidence; they found that only three of the hypotheses held against their criteria, and one of these three hypotheses was that,

> change efforts employing standardized strategies which involve high levels of participation will be more successful than those which involve low levels of participation. (p. 149)

This finding speaks specifically to survey feedback, whose major tenet is that is consults the total population under review.

It is evidence such as this that suggested survey feedback as the methodology to be used in this study. It is one of the major intervention strategies of OD and has received (as far as the literature will support)

empirical evidence to validate its effectiveness. Its operating characteristics, underlying philosophy and applicability to TTIs is discussed in the next section.

Survey Feedback

French and Bell (1978) maintain that survey feedback,

> refers to the use of attitude surveys and data feedback in workshop sessions and constitutes the second major thrust in the history of OD. (p. 17)

The history of survey feedback dates from Kurt Lewin's establishment of the Research Center for Group Dynamics at MIT in 1945, and his seminal work on Action Research (Lewin, 1946) which outlined a generic model which has fundamentally affected survey feedback designs down to the present. Another major influence was that of Likert, who as Campbell (1978) points out conducted similar work at the Survey Research Center at the University of Michigan. In the late 1940s there was interaction between these groups which was partially responsible for the formation of the Institute of Social Research (ISR) at Michigan. It was out of this crucible that Floyd Mann, a student of Likert's, had his influence. It was Mann in particular (1952, 1957) who began to use survey feedback in a systematic way in larger organizations. More recently it has been a student of Mann's, David Bowers, who with his associates at the University of Michigan, established survey feedback as a major OD intervention, strengthened its theoretical base, refined its methodology, validated the survey of organizations (1972) and did OD work in over 2,000 organizations.

The literature on survey feedback is reasonably extensive, the 35 references cited here are a representative if not complete selection of

sources of this topic. They can be usefully categorized under three headings, those that describe survey feedback and attempt to set it into a conceptual framework, studies which report on survey feedback in noneducational settings, and studies which consider survey feedback within the educational milieu.

This section discusses studies in the first two categories and the following section deals with studies of survey feedback in educational settings. The work of Bowers (1972, 1974, 1977) and Nadler (1976, 1977) is by far and away the most important contribution to our understanding of survey feedback. This theoretical base is best outlined in Bowers and Franklin's 1972 paper, "Survey Guided Development: Using Human Resources Measurement in Organizational Change." Here Bowers sketches out the basic theoretical concepts of a survey feedback intervention. The basic assumption is that,

> Change is throughout a rational process that makes use of information, pilot demonstrations, and the persuasive power of evidence and hard fact. (p. 45)

The principles of data feedback appear explicit, straightforward, even simplistic, but we must beware of regarding it simply as handing back tabulated numbers, percentages and little else. As Bowers notes,

> On the contrary, where the survey feedback is employed with skill and experience, it becomes a sophisticated tool for using the data as a springboard to development. (Optimally) . . . an effective survey feedback operation depicts the organization's groups as moving by a discussion process, from the tabulated perceptions, through a cataloguing of the implications to commitment for solutions to the problems that discussion has identified and defined. (p. 45)

This is a definition of systematic, planned change. We are talking about an intervention specifically designed to lead to organizational

growth and development. But before one can attempt to change one has to have a clear understanding of the way in which the organization is presently functioning. This information is provided by the survey data, obtained by questionnaire which contrasts perceptions of what is actually occurring within an institution, with what ideally should occur. Using this information as a basis, Bowers points to two strands of thought which explain the workings of feedback. The first relates to the motivation which arises from the discrepancy in differing perceptions, i.e., between real and ideal functioning (see also Locke, et al., 1968), and the second to the observation that human behaviour is characterized by a search for processes by which the human being controls his/her environment. Motivation is created by the realization that the actual state differs from the accepted model and that consequent change involves a sequence of events including informational inputs, formation of a model, selection of a goal, assessment of a situation, formation of a diagnosis, feedback adjustment and reevaluation.

Bowers also points to the pivotal role occupied by the change agent. He sees this person as having two main functions; first as a transducer between scientific knowledge regarding organizational functioning and change processes on the one hand and the particular situation on the other. Secondly as an active advocate of goal oriented behaviour that person evaluates and helps the organism evaluate and progress towards the goal.

Nadler (1977) in his recent book on feedback and OD, provides a useful extension to Bowers' rationale, with his notion of information

as energy. He argues that information influences and changes behaviour in two specific ways. First information serves to energize behaviour; it arouses feelings and creates forces which bring about behaviour change, much in the same way as the discrepancy which Bowers talked about. Secondly, data can be used to direct behaviour once the motivation for action has been created. Information has two functions, that of energizing and directing. The first is a prerequisite of the second; information cannot bring about change in the absence of the motivation to change. The critical point is that feedback can only initiate change--it cannot guarantee its subsequent development. Development is a function of the gestalt of the intervention, the environment in which it intervenes and the quality of the process.

Drawing on this work and the pioneering efforts of Floyd Mann and Rensis Likert (Mann, 1957; Mann & Likert, 1952), Nadler (1976) in his earlier paper on the subject outlines a number of basic principles for the conduct of survey feedback interventions:

1. Participation of organization members in data collection is vital.

2. The program should involve the collection and feeding back of quantitative and objective data about the organization itself, new information, and possibly provide directions for or alternative ways of achieving positive change.

3. Group forces are important in bringing about change; therefore diagnosis, feedback, and action should focus on the ongoing work group.

4. Given the hierarchical structure of organizations and the importance of supervisory behaviour in infuencing subordinate behaviour, feedback should start at the top of the organization and work its way down through a chain of overlapping family groups.

5. Participation in the process of analyzing feedback data should take place to reduce resistance and to reinforce action based on problem-solving sessions using feedback data. (pp. 178, 179)

These principles and the previous discussion have characterized the basic theory of survey feedback interventions. Sashkin et al. (1976) articulated a generic operationalization of this theory into a six-stage model:

1. A questionnaire instrument is developed.
2. The survey is administered to relevant individuals in the organization.
3. The data are analyzed and data summaries are prepared.
4. Results are fed back to groups (usually work groups with their supervisors).
5. The group holds a discussion of the results and often obtains help regarding its process during the discussion.
6. At a later date, the survey is readministered, both for purposes of evaluation and for continued intervention (whereupon steps two through five are repeated).

Although not unique this model contains the elements of most of the different approaches (e.g., Katz & Kahn, 1978). The model was refined by those working at the ISR at Michigan, beginning with Mann, through Neff (1965), the work cited by Bowers above, and most recently in the sophisticated publications of Bowers and his colleagues (Bowers & Franklin, 1977; Franklin et al., 1977; Hausser et al., 1977).

Four other sources have usefully refined the knowledge base on survey feedback (Alderfer & Brown, 1972; Alderfer & Ferris, 1972;

Alderfer & Holbrook, 1973; Schmuck, 1973). Alderfer and his colleagues at Yale have researched the impact of survey feedback interventions on the significant populations involved, viz., consultants and organization members. As a consequence they found that effectiveness was enhanced by greater involvement and participation of organization members, more awareness of the organization by consultants, the use of inside and outside consultants, and a two-step process of peer group meetings, followed by intergroup meetings.

Schmuck (1973), in his paper on "Incorporating Survey Feedback in OD Interventions", is more concerned with the implementation of survey feedback rather than its structural characteristics. To this end he articulates guidelines for successful interventions, and in particular concentrates on the skills required of the OD consultant. Whilst not supported by empirical evidence, these ideas have withstood the test of time and continue to be a lodestone to neophyte consultants (Schmuck et al., 1977). This is an important point (i.e., the skills required of an OD consultant) because as Chesler and Flanders (1967) noted, the way the consultant behaves and the style of feedback employed can affect the acceptance or degree of resistance to that data.

To this point the studies reviewed have been concerned with establishing a theoretical framework for survey feedback. In addition, with the exception of Schmuck's (1973) paper, they have all been concerned with survey feedback in industrial settings. Indeed, survey feedback was first conceived of as a tool for enhancing production, and industrial efficiency (see for example the criteria for organizational

climate in Bowers, 1973). It is still being used almost exclusively for this purpose (see for recent examples Frey et al., 1977; Pasmore & King, 1978; Nadler, 1979). In the six studies cited by Marguilies et al. (1977) all but one were in corporate settings, and the exception, Hand et al. (1975) was in a lab setting using 216 college-level business students doing a simulation game!

The other setting where survey feedback has been used is in military organizations (see for example Adams, 1979; Bowers, 1975). Much of the development work at the ISR University of Michigan was funded by the office of Naval Research.

The argument so far has been somewhat theoretical, but before the practical dimensions of survey feedback (specifically the model used in the study) are examined more closely two distinctions need be made: the nature of survey feedback itself, and the type of organization in which the strategy is used.

When discussing the ICL study reported by Bowers (1973) the problem of the "operating characteristics" of the various interventions, in particular survey feedback was alluded to. Mention was made of Bowers' strict interpretation of the term, and the possibility of contamination as a result of uneven implementation. That this is a possibility (and reality) in many action research projects is adequately testified to by the differential application of the model used in this study which is reported in the following chapter. The point being that one has to be exceedingly precise in the articulation of the elements and components of one's feedback model. Bowers (1973) for example was careful

to define survey feedback so as to include careful problem-solving efforts and supports. The implications of this are that the effectiveness of survey feedback is enhanced the more systematic and related it is to a specific practical situation.

The second distinction has to do with the setting in which the intervention occurs. As has been previously noted, much of the theoretical work on survey feedback was done by David Bowers and his associates at the University of Michigan. Their concern has been with industrial organizations, and their use of survey feedback has been as a tool to assist organizations conform to an explicit model of organizational functioning. They work with a standardized instrument (Taylor & Bowers, 1972) which has a clear perception of what an organization should look like; the disparity between the model and the data motivates that organization to make mid-course corrections and move towards the ideal model. There is no real question of problem solving in the sense used in chapter two--it is essentially a static model of development, and conforms more to Argyris and Schon's (1978) idea of single loop learning.

Survey Feedback in Educational Settings

When used in the educational context, survey feedback assumes a different nature, for there is no ideal model with which to approximate. The data used in the intervention is descriptive and heuristic rather than prescriptive and didactic. Given this, the data in the educational situation is used as a springboard to development; but where does one develop to? This is problematic and requires a mobilization of

resources within the organization to decide on direction and solutions. The argument is, that given the nature of educational organizations the use of survey feedback as an OD strategy is of necessity complemented by a follow-through phase that includes the development of an action plan and problem solving.

The discrepancy between ideal and real functioning, as detailed by the results of the questionnaire, creates a dissonance which if nurtured and reflected on provides the direction for change.

This is the message one gets from reviewing the studies on survey feedback in educational institutions (Miles et al., 1969, 1970, 1971; Schmuck & Miles, 1971; McElvaney, 1971; Marguilies, 1972; Callahan & Lake, 1973; Coughlan & Cooke, 1974; Mohrman et al., 1975; Huguenin & Deal, 1977; Cooke & Coughlan, 1979). Most of these studies have been well reviewed elsewhere (Nadler, 1976; Fullan et al., 1980). The point to be made here is to demonstrate they they all emphasize in their different ways the paramount importance of the follow-through phase in educational organizations.

The early work by Miles and his collaborators (Miles et al., 1969, 1970, 1971; McElvaney & Miles, 1971; Schmuck & Miles, 1971), tended to be concerned with design experimentation in feedback effects in schools. The description of their developmental and research efforts are hesitant and tentative as they grapple with the complex array of interactions that such a model implies. There is a sense of heady excitement, trepidation and self effacement in these papers which in effect report on only two studies.

One gets a similar feeling in reading the articles by Marguilies (1972) and Callahan and Lake (1973). Although concerned with different settings, the former a university college, the latter a community college, there is that same air of experimentation that pervades the Miles studies. Although incomplete, the Marguilies study points to a consciousness raising in terms of process dimensions and the initiation of certain ad hoc action plans, e.g., departmental feedback sessions, a task force to improve staff meetings and other college concerns, and a meeting with the vice president to discuss concerns about the image, direction and goals of the university. One is left wondering whether this ad hoc nature of the follow through was purposeful or a consequence of the stage of conceptualization that the model was in at that time.

The paper by Huguenin and Deal (1977) is a better example of this genre. It is an almost textbook description of a successful survey feedback intervention into a small school district. It is a much more confident approach than those of the Miles' studies, but lacks the design sophistication characteristic of the later studies.

The papers by the Mohrmans (1975, 1977) are indicative of the problems alluded to above and in the previous chapter. They used a sophisticated survey feedback (SF), problem solving (PS) and collective decision (CD) making design. Unfortunately, they encountered difficult entry problems (e.g., lack of support, participation and a negative prehistory), which virtually crippled the intervention. In the event, nine out of 22 schools participated in some form of feedback and follow through. This experience suggests that even with a careful

design the contextual variables operating on an intervention can exert a powerful influence.

That this particular feedback design is in itself effective is demonstrated by the work of Coughlan and Cooke (Coughlan & Cooke, 1974; Cooke & Coughlan, 1979). The SF-PS-CD model with its emphasis on structured follow through and implementation is significantly different from the survey feedback intervention of Bowers (1973). That this particular model works is suggested by the results in the 1974 study, where the structural intervention of the SF-PS-CD program had significantly more positive results than the other conditions. In the 1979 study,

> the evaluation results indicated that the program was generally successful in establishing collective structures and increasing the perceived adequacy of collective decision-making processes in the experimental schools. (p. 71)

These results, together with the negative experience described in the Mohrman papers suggest that intervening in educational organizations requires a highly structured approach.

Survey Feedback as an Intervention Strategy in TTIs

The previous chapter concluded with a theoretical model for intervention into TTIs which combined both task and process elements, i.e., took into account the object of changing as well as the intervening institutions inhibiting internal characteristics. It was an ideal model with no espoused technology--an emasculated skeleton with no living features. This chapter has attempted to operationalize the model within the context of OD and in particular a survey feedback

intervention. The chapter has been at pains to point out the suitability of survey feedback as an intervention tool in TTIs.

A major feature of a survey feedback intervention with its attendant emphasis on follow-through is its adaptive quality. This was the emphasis in chapter two, where it was argued that to be effective a strategy for change had to take into account the contextual variables operating within the receiving institution. An intervention strategy which gathers information from the range of organization members, feeds this data back in a heuristic fashion, and then encourages organization members to take collective action on the basis of the data, is well suited to TTIs. The strategy also fits well with Argyris' (1970) three basic requirements for effective interventions, viz., the generation of valid information, the making of free, informal choices, and internal commitment to the choices made. Similarly it reflects Lippitt's (1978) three stage planned change process, which moves from establishing the need for change, through diagnosis and action planning to stabilization and the generalization of change.

All of these models are adaptive in the sense that the receiving institutions internalize a change model, adapt it to their own situation, and use these behaviours as a resource for the future. The adaptive approach conforms to environmental needs and conditions. But more than this, survey feedback specifically addresses the organizational pathology associated with TTIs.

The previous chapter argued that TTIs suffer from a lack of goal clarity, have poor communication, possess norms which inhibit effective

decision making and implementation, and in general have a poor problem-solving capacity. It has been seen in this chapter that survey feedback is an approach which aspires to ameliorate this condition. It aids goal clarification by giving information on what the members of the institution perceive as goals. Its design improves information flow and communication, encourages adaptation, and creates a climate for consensual decision making. The follow-through phase presents a model for problem solving that can be internalized and used as a resource in the future.

The following chapter describes the survey feedback model of intervention used in the study, and discusses how effective it has been in accounting for the issues and problems raised in this and the previous chapter.

CHAPTER FOUR

The Nature of the Intervention

This chapter is divided into two sections. The first discusses the planned model of intervention designed for the study, which was based on the theoretical considerations discussed in the previous chapters. The second section reviews the differential application of the model in the institutions of the sample.

A Model for Intervention in TTIs

There are three distinct phases to the intervention design used in this study. They are;

Preparation and Data Gathering. Here the concern is for fostering a positive climate within the institution, identifying and preparing the sample, and the practical details of data collection.

Data Feedback. Here the emphasis is on facilitating an appropriate climate, and attending to the technical aspects of feedback which lead to problem identification.

Follow Through. At this stage a problem solving action plan is prepared and operationalized, the generic skills involved in maintaining the program of self-initiated change are acquired, and a problem-solving capacity within the faculty is institutionalized.

These phases with their constituent stages are outlined in Figure 4:1.

Insert Figure 4:1 about here

Given individual variability amongst institutions, the process takes in

PHASE 1	Preparation and Data Gathering	- Identification of project sample - Training of internal facilitators and instrument development - Fostering positive climate within individual institutions - Identification and preparation of institution sample - Data collection - Data analysis
PHASE 2	Data Feedback	- Reinforcing positive climate - Initial feedback - Second training session - Deriving implications from aggregated data - Feedback
PHASE 3	Follow Through	- Preparation of action plan - Operationalization of action plan and problem solving capacity - Monitoring of developmental process - Evaluation - Termination and Final Report

Figure 4:1. Phases of the intervention.

the region of 18 months to complete. The time span of this project was from December 1978 until June 1980.

The stages of the model are self-explanatory and make an interesting comparison with the feedback cycle that Nadler (1977) describes in Figure 4:2. Although sequentially similar there are a number of features

Insert Figure 4:2 about here

in the design of the model used in the project that extend the traditional feedback model, of which Nadler's is a good example.

Internal Facilitators and External Consultants

The internal facilitators were those persons within the institutions identified by their deans in consultation with the external staff to act as standard bearers for the project within their faculty, usually two per faculty. The internal facilitators were to be chosen for their interest in, or responsibility for, organization development, and because they commanded considerable peer respect within the faculty. The external consultants were those engaged on the project independent of the institutions, and included the principal investigators and research assistants.

The literature suggests that the most effective consultancy model for OD efforts is that which utilizes both internal and external consultants (see for example, Runkel, Wyant, Bell, & Runkel, 1980). In horizontal organizations such as universities, this approach increases the legitimacy of the project, particularly where faculty are suspicious of external interventions. Related to this is the increase in the sense

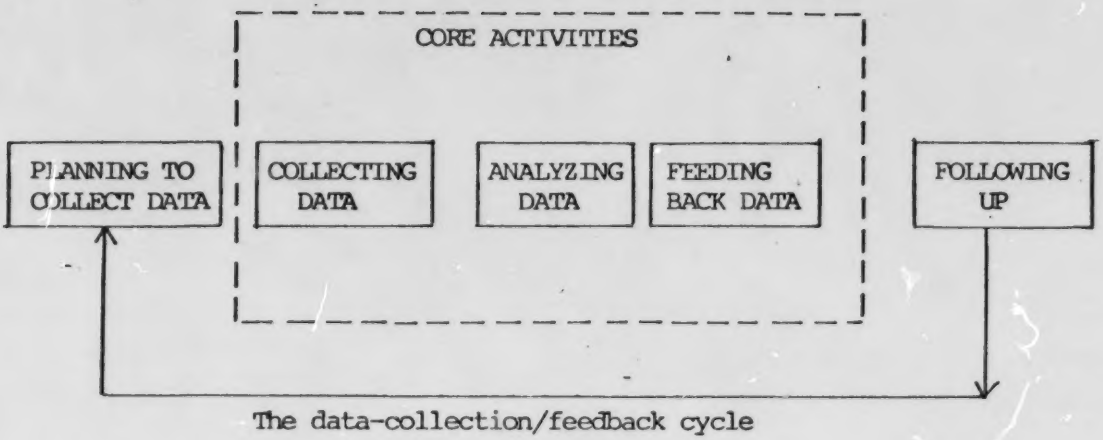

Figure 4:2. The data-collection/feedback cycle (From Feedback and Organization Development: Using Data Based Methods by D. A. Nadler, 1977.)

of ownership towards the intervention by a faculty when it is seen to be under their control. This is a crucial factor in the fostering of a positive climate prior to data gathering and feedback, which in turn critically affects the development of an action plan at the later stages of the intervention. At this juncture any problem-solving plan becomes part of the faculty's organizational structure, and should therefore be guided by their own personnel.

The role of the external consultant is catalytic, providing impetus, encouragement, consultation and a resource capacity. The external consultant should play an increasingly less important role in the developmental aspects of the project as time progresses. The ultimate goal was for the institutionalization of a problem-solving capacity during the Follow-Through phase. The development of a sense of ownership towards the intervention is crucial to its success and the role of the internal facilitator in this cannot be underestimated.

Positive Climate

Ownership is closely linked with the establishment of a positive climate, which refers to the attitude of the receiving institution towards the intervention.

There are a number of elements in this. The internal facilitators must command peer respect. Trading on this, they then effectively "sell" the intervention to the faculty. It is best done through small homogenous groups within the system. This usually creates a climate of expectation which is fuelled by the facilitators with regular information about the progress of the OD effort to those involved.

The engendering of a positive climate is influential in creating ownership towards the intervention, and should be reinforced at critical points in the process. Particularly prior to data collection, prior to feedback and at that crucial moment during the follow-through phase when the action plan is about to be operationalized.

Training

Training for internal facilitators is an important feature in the design of the model. It was to occur at two points during the process, early on in the preparation phase and prior to feedback. The training seminars were intended to last 2 1/2 days at a mutually convenient neutral location and were to be staffed by the external consultants with an expert consultant brought in for the purpose. These sessions had three main aims. First, to increase the competence of the internal facilitators by providing them with training in the techniques they would use during the project, specifically climate preparation, sampling, feedback and action planning. Second, to engender a sense of commitment on the part of the internal facilitators towards the project. The climate of the sessions was intended to be warm and open, mutual interaction was to be encouraged and input from the internal facilitators could even result in policy decisions. That this could happen (e.g., as with instrument development), was intended to increase ownership towards the project, which in turn would manifest itself within the institutions. A third aim of the training sessions was to increase informal networking. People from differing institutions were to be drawn together around a common purpose and this intensive endeavour had

the potential to result in professional links which could extend beyond the project. This was an important aim as teacher education tends to be too isolated an activity.

Feedback

What it is that goes on during a feedback meeting is, as Nadler (1976) admits, still something of a mystery. The design allowed for two feedback sessions. The initial feedback followed closely after data collection, which presented the data in summary form to the faculty. In these sessions feedback was typically first given to the administrative leadership within the faculty and then groups arranged by departments. The practice of giving the leadership feedback first is well established in the literature (Nadler, 1977). There are two purposes to the initial feedback; firstly, it engendered energy after data gathering, and demonstrated that there are in fact outcomes to the study, and second that it began the process of problem identification and consciousness raising. This was an important prelude to the major feedback session and action planning.

The design of the main feedback session was to be a function of the reaction within the faculty to initial feedback, and the needs of the faculty at the time. Consequently it could take many different forms. By this stage problem identification would have begun, and would be accelerated by comparisons with the aggregated data. Action planning followed closely, so as to capitalize on the energy created by the feedback of data.

Follow Through

The design identified a number of stages in the follow-through process; namely, problem identification, problem solving and decision making. The development of an action problem solving plan results from problem identification and leads eventually to decision making. The individual steps in this process are outlined in Figures 4:3 and 4:4, which have been drawn from The Second Handbook for OD in Schools (Schmuck et al., 1977).

Insert Figure 4:3 about here

Insert Figure 4:4 about here

The intent was to combine the second feedback session with training in problem solving and to use the Survey Feedback Report as elucidatory material. It was intended that problem identification would have begun by this stage and small groups (prompted by the internal facilitators) would have informally committed themselves to certain problems. The training would then provide the temporary groups (Miles, 1964) with a structure and technology with which to operate. At this stage the groups would be facilitated by the internal facilitators and the external consultants relegated to a monitoring role.

Evaluation

An evaluation component was built into the design; it included monitoring during the follow-through phase and the application of a modified instrument at the end of the follow-through period. This was

This model organizes information to define a problem and to resolve or manage conflict that occurs in creating a solution. Information is organized into three interrelated dimensions.

The SITUATION Dimension: Information about (a) the essential features of the current state and (b) the forces that facilitate and that impede moving to a more desired state.

The TARGET Dimension: The desired state. What we want to accomplish and to avoid. Targets are chosen because those working on the problem value and desire them; they are not imposed. (Imposed requirements are part of the situation dimension.)

The PROPOSAL PLAN Dimension: Specific action proposals aimed at changing the current state into the desired state. "Who will do what by when?" Any proposal for action always implies some view of the situation and of the target.

Here are some common expressions and terms that fit into the three dimensions.

Situation	Target	Proposal/Plan
Starting point	Termination	Path from S to T
Facts, opinions, explanations about the current conditions, predictions about efforts to change	Goals, aims, ends, values, purposes, objectives	Means, plan, strategy, implementation, procedure.
Environment as the group perceives it	Outcome desired by the group	The group's behaviour

Figure 4:3. Group Problem Solving (The S-T-P model of problem analysis) (Adapted from The Second Handbook of OD in Schools by R. A. Schmuck, P. J. Runkel, J. Arends, and R. Arends, 1977).

A Problem-Solving Cycle

1. Specify situation-target discrepancies.
2. Define a target with behaviour descriptions.
3. Diagnose the situation.
   A. Multiple system levels
   B. Force field analysis
4. Generate ways of reducing restraining forces and of increasing facilitating forces. (Brainstorm)
5. Plan specific actions with dates and persons, using P-E-R-T charting.
6. Anticipate barriers and difficulties. Revise.
7. Action. Take first steps.) Action
8. Get feedback--assess effects.) Research
9. Revise plan as necessary.

Figure 4:4. A problem-solving cycle (Adapted from The Second Handbook of OD in Schools by R. A. Schmuck, P. J. Runkel, J. Arends, and R. Arends, 1977).

to help both the institutions and the research team assess the value of the intervention and its potential as a developmental tool.

Termination

A major intent of OD interventions is to become self-renewing. Although the consultants were initially responsible for the intervention, the institution was intended, through the efforts of the internal facilitators, to internalize a model for institutional development. This is the problem-solving capacity mentioned in chapter two, whereby an institution can diagnose its problems and mobilize resources within itself to solve them. A major goal of the project was to have this capacity developed within member institutions by the termination stage.

This section has outlined the original design of the intervention, as it was intended to be implemented. How faithfully this design was put into practice is the topic of the following section.

The Model in Action[8]

Sample

The sample is broadly representative of TTIs in Anglophone Canada. It was drawn randomly but a control was exerted to ensure an even geographical representation. When an institution was sampled, but declined to take part in the study then another institution was drawn from that province (this only occurred twice). Twelve institutions participated in the study, the minimum requirement was that they allow the research team to collect data. These institutions were:

8. See footnote following page.

Footnote 8, page 68.

This particular study is based on research initiated by the author in connection with the SS & HRC funded project, "The Management of Change in Teacher Education", principal investigators, Dr. Michael Fullan and Dr. Marvin Wideen. The SS & HRC project had two major objectives:

i. to gather data on the process of program change in faculties of education, and

ii. to engage in a feedback process of the data with each of the institutions to help them derive implications of the data for their own situation. (Fullan et al., 1979 b, pp. 3, 4)

A sample of 12 Canadian TTIs were identified and data collected from administrators, faculty and students in each institution, using the Guide to Institutional Learning (GIL), an instrument adapted specifically for this sample (Fullan et al., 1979 a). The GIL collected qualitative and quantitative (real/ideal responses on a Likert Scale) data on 13 scales. These were: goals of teacher education, institutional practice, faculty activities, influence on institutional program, professional and academic recognition, problem solving, leadership, climate, role of the student, involvement in change, factors affecting change, degree and extent of previous change, and environment. Interviews were also held with faculty and significant educational others in the province. For sake of clarity the SS & HRC funded project, "The Management of Change in Teacher Education" is referred to as "the project" and this thesis, "the study".

Western Canada (SFU) Group	Eastern Canada (OISE) Group
University of Victoria	University of Regina
University of British Columbia	University of Toronto
Simon Fraser University	University of Windsor
University of Alberta	University of New Brunswick
University of Calgary	University of Acadia
University of Saskatchewan	Dalhousie University

Variability

The ideal model of intervention outlined in the first section of this chapter was not implemented in that form within all of the institutions of the sample. In fact there existed a wide degree of variance in the application of the model. There were a number of reasons for the variance.

First, it is not too much of an exaggeration to say that Canadian TTIs (as least the ones in the sample) are at present in an hiatus. Faced with increasing environmental pressures, a reduction in budgets and declining enrolments, many institutions are trying to find a new direction for themselves or attempting to consolidate a new position. This obviously had an impact on the study, for when survival is the alternative, then such an intervention takes a low priority. What this meant in practice was that although many institutions entered the project with enthusiasm and commitment, unforeseen circumstances caused this initial commitment to lapse. In one institution it was the appointment of a new dean, in another an emergent political crisis within the faculty, and in another a deep malaise growing out of innovative fatigue.

A second reason for the variability was a function of having two research teams on the project. These research teams, one based at the

Ontario Institute for Studies in Education (OISE) and the other at Simon Fraser University (SFU), had responsibility for the Eastern and Western samples, respectively. They also had slightly differing perceptions of the research and tended to stress one of the objectives of the project more than the other. The group based at OISE tended to emphasize gathering data (objective I) and obtaining an accurate picture of contemporary teacher education; whereas the group at SFU tended to emphasize the survey feedback and action research aspect (objective II) of the project.

A third reason which caused variability was that some institutions committed themselves to participation in the project without fully understanding the nature of what was involved. When this was eventually realized, they (usually the dean or the internal facilitator) typically played down the action research component of the project, as this was perceived to be the most threatening part of the exercise.

With the benefit of hindsight, one could point to more sophisticated reasons for the variability in the intervention, for example the concept of OD readiness; but the impact of these types of effects are more likely to have an influence on the quality of intervention rather than on the actual method of intervention. Taken across the 12 institutions, the variations to feedback fell into three distinct categories: Data Handback, Data Handback and Action Planning, Data Feedback and Follow Through. Data Handback refers to a situation where the data collected from the institution was analyzed and handed back to the institution in the form of a written report. The institutions in the second category, Data Handback and Action Planning, also received a report; in addition,

their internal facilitators were involved in a planning session with the research team and consultants, to discuss strategies for acting on the data. The final category, Data Feedback and Follow Through, refers to a situation where the data was handed back, and the internal facilitators involved in planning sessions. In addition, the external team participated in feedback within the institution and actively encouraged follow-through on an ongoing basis. This variability is summarized in Figure 4:5.

Insert Figure 4:5 about here

The sequence of events which occurred in each of these categories is now described in more detail.

Data Handback

Typically institutions in this group had little contact with the milieu of the project. They did not attend either of the training sessions and had little contact with other institutions of the sample. Data was characteristically collected in a vacuum, there was little preparation for data gathering (e.g., in the form of a meeting explaining the purposes of the project), and returns tended to be lower than those from either other group. When the data had been analyzed and a report prepared, it was sent to the dean or associate dean of the institution concerned. In two of the four cases, members of the research team talked at some length with the dean about the significance of the results. As far as the research team was aware, this information was not transmitted to faculty in any direct fashion, nor did any

Method of Feedback	# and % Involved		Consultancy Group	
			SFU	OISE
Data Handback Only	4	33%	1	3
Data Handback and Action Planning	4	33%	1	3
Data Feedback and Follow Through	4	33%	4	0

Figure 4:5. Variability of intervention in the 12 institutions of the sample.

problem solving occur as a result. The role of the research team in these institutions was simply to collect, analyze and return data to the dean, with very little contact with the faculty.

Data Handback and Action Planning

The institutions in this group identified internal facilitators to work with the project, and had representatives at both of the training sessions. As such they thoroughly understood the purposes of the project, and initiated action planning on the basis of the feedback report. However, only in one institution of this group did a formal feedback session occur (i.e., where the data was systematically fed back to institution members), and this was a limited time slot during a faculty meeting. Also little action was taken as a result of the action planning; no temporary groups were formed, and the action planning was generally prosecuted by a single individual in each faculty. This lack of peer support within the institution tended to vitiate the effectiveness of the lone internal facilitator. The role of the research team in these institutions was more than simply data-gathering, they had regular meetings with the internal facilitators for the duration of the project. But for ethical and financial reasons they could not provide the type of support needed by the internal facilitators, for the intervention "to take" in these institutions.

However, these institutions should not be regarded as poor examples of the third category or good examples of the first. There were a set of circumstances operating on them which placed them firmly in the "Data Handback and Action Planning" group.

Data Feedback and Follow Through

This is the intervention treatment which corresponds most closely with the ideal model articulated in the first part of this chapter. In every case each of these institutions were committed to the project from the outset, and the internal facilitators were persons who commanded considerable peer respect in their institutions. Considerable efforts were made to ensure a positive climate for data gathering and subsequently for feedback. Training was timed to occur prior to these crucial periods. All the internal facilitators from these institutions attended two training sessions (December 1978 and June 1979), each lasting 2 1/2 days. The emphasis during the first session was on instrument design and data gathering; the second concentrated on feedback and action planning. Individual faculty were made aware of the purpose of the study, in the main through face-to-face contact, and an effort was made to keep faculty in touch and interested in the project prior to the feedback stage. The feedback report was negotiated with each institution and the group concerned with feedback (note the difference between group and individual in the Feedback and Handback Groups) in order to ensure that the issues were presented in as useful and heuristic way as possible for that particular institution. At that stage a group within the faculty took control of the project within their own TTI and decided in consultation with the research team the most appropriate form of feedback and follow through. This group usually formed a temporary system whose sole purpose was to prosecute feedback and follow through and encourage small groups of faculty to

follow through on their own action plans. The role of the research team was to act as "expert witness", provide technical information when required, and monitor the process. Little in the way of final evaluation took place, except for the interviews and site visits conducted by the author and described in the following chapter. Similarly termination did not occur as described previously.

These three descriptions adequately describe the types of activity engaged in by the sample institutions during the intervention period. They obviously vary from the ideal model presented in the first part of the chapter, which is inevitable in action research of this type. The following section discusses some limitations of the intervention which applied to all institutions of the sample.

Limitations to the Intervention

Having described the details of the intervention in each of the sample groups, a number of limitations to the intervention design need to be reviewed.

i) Entry problems. Most OD interventions are client initiated--an institution perceives a problem, decides on remedial action, and seeks external consultation. The consultant then negotiates a contract with the client, and in this process ensures to his/her satisfaction that suitable conditions exist within the institution for an OD intervention. This aspect of the process is referred to in the jargon as "entry".

In this instance, however, the consultant courted the client. Having been funded, the research team then had to solicit a sample. Although

this was in itself not difficult to do, this perverse approach to entry created a series of situations which in all probability ensured that the intervention could not succeed. Three interrelated problems in particular bedevilled the intervention. The first was that the intervention was not based on a perceived need, and as a result had problems in creating a focus for itself. Because the clients had no target, no end behaviour toward which to aim, the exercise appeared somewhat bland and vacuous. Second, because the intervention was externally initiated, there was a feeling by clients that the project did not belong to them, that it was being carried out for someone else, and as a result ownership by the institutions of the intervention was difficult and slow to accomplish. Third, in most instances the intervention occurred within an institution because the dean had accorded with the research team's request for participation. This unilateral decision in some cases created suspicion as to the dean's ulterior motive, and in most others ensured that faculty were unaware of the rationale and purposes of the intervention.

These entry situations, so different from those usually encountered in OD interventions, created lasting difficulties for the research team. It is thought that this is the most important single factor in accounting for the lack of impact of the intervention. It is for this reason as much as any other that only one-third of the original sample fully participated in feedback. Even the intervention in these institutions was coloured by the problem.

ii) Length of intervention. The project of which this study is a part was funded for an 18 month period. As a result the intervention occurred over a maximum time period of 18 months, from December 1978 to June 1980 (and a number of the sample were not involved for the whole of this period). Yet to be effective, OD efforts typically take much longer; Miles and Schmuck (1971) maintain that,

> The available evidence suggests that in large organizations two to three years of OD effort is typical before the completion of serious and self-sustaining change. (p. 3)

And Fullan, Miles and Taylor (1980) advise three to five years, so it may well be that the comparatively short time within which the project operated had a limiting effect on the impact of the intervention.

iii) Timing of intervention. It has already been mentioned that the intervention occurred at a difficult time in Canadian teacher education. Most of the TTIs involved in the intervention appeared to be involved in some form of crisis. An interregnum between deans, massive program change, structural reorganization, a desperate bid to search out new markets in the face of declining enrolment, or an impotent bewilderment in the face of possible closure, characterize the state of some of the institutional sample during the time period of the intervention. Consequently an externally-initiated research project may have had low priority in the face of these pressing concerns.

iv) Differential application of the model. This point, concerning the differing emphasis placed on feedback by the two research teams,

has been mentioned previously. It provides a strong explanation for the reason why handback occurred in some institutions and feedback in others. As the author of the present study acted as the consultant to all the institutions in the Feedback and Follow Through group, the possibility of uneven application of the models' operating characteristics is reduced.

It is difficult to assess how far these factors, singly or together, affected the impact of the intervention. The failure of some institutions to participate in any form of feedback is obviously due to one or all of these factors. It is more difficult to estimate the extent of the importance of these factors in the Feedback and Follow Through group. These limitations need to be borne in mind when assessing the effectiveness of the intervention in chapter six.

CHAPTER FIVE

Methodology

Multiple Research Perspectives

The need to consider multiple perspectives has been summarized by Patton (1975) as follows:

> The very dominance of the scientific method in evaluation research appears to have cut off the great majority of practitioners from serious consideration of any alternative research paradigms. The label "research" has come to mean the equivalent of employing the scientific method of working within the dominant paradigm. (p. 6, quoted in Aoki, 1979)

Jurgen Habermas (1972) in the appendix to his book Knowledge and Human Interest outlined a framework which allowed for the consideration of multiple perspectives when one is considering human action. The potential application of Habermas' tri-paradigmatic framework to education is only just being realized (Hopkins & Wideen, forthcoming), but this approach has a peculiar and compelling relevance to this particular study.

Habermas' three paradigms—the empirical analytic, the situational interpretative and the critical theoretic, have been summarized by Aoki (1979) in the following way:

> First, there is the empirical analytic inquiry orientation in which explanatory and technical knowledge is sought. This research mode is familiar to us as "science". Second, there is the situational interpretative inquiry orientation in which research is conceived of as a search for meaning which people give in a situation. Such an account is called phenomenological description. Third, there is the critical inquiry orientation which is gaining some visibility in research literature. Researchers within this orientation are concerned with critical understanding of fundamental interests, values, assumptions and implications for human and social action. (p. 7)

These paradigms allow a much broader perspective on the nature of human action. They refer to man's three root activities:[9] work, communication and reflection, and these three activities yield three forms of knowledge: nomological, situational interpretative and critical. In terms of knowing, nomological knowledge refers to empiricism, facts, generalizations, causality; situational knowledge refers to the meanings people give to situations, to establishing common meanings and authentic experiences, and of understanding the social context in which persons act; critical knowing is that which combines reflection and action, which explores underlying motives and hidden assumptions and which seeks transformation of the world through the dialectic between thought and action.

Stated more concretely in terms of current theoretical positions: the empirical analytic orientation is reflected in structural functionalism, behavioural theory and systems theory; the situational interpretative orientation is reflected in phenomenology, the sociology of knowledge and ethnomethodology; and the critical orientation is reflected in critical social theory and psychoanalysis.

These orientations are also reflected in contemporary approaches to educational research. Current testimony to the well being and ubiquity of the empirical analytic tradition can be found in the most recent copy of the American Educational Research Journal. Recent

---

9. This discussion owes much to the insights of and conversations with Dr. Ted Aoki. See in particular his Toward Curriculum Inquiry in a New Key (1979 a), and his papers in Werner, 1979, and Hopkins and Wideen, forthcoming.

naturalistic or ethnomethodological studies are examples of the situational interpretative orientation (see for example Smith & Geoffrey, 1968) and the writing of Paulo Freire (1972, 1973) is the best known example of educational work in the critical mould.

Two points of clarification need to be entered here. First, it is important to realize that Habermas' work (as distinct from many contemporary polemics) carries with it no pejorative overtones, although he obviously has a predilection for critical theory. Paradigm A is not necessarily better than Paradigm B or C—simply different, and different because it fulfils a different task. So research on the same topic could be carried out under either of the three paradigms and the outcomes in each case would be different, and more or less useful depending on the interest of the endeavourer. This is the important point: there is a need for multiple research perspectives.

Second, the use of a particular research paradigm does not necessarily entail a specific methodology. Although quantitative research methods and experimental and quasi-experimental designs are usually employed within the empirical/analytic paradigm, that does not preclude the use of qualitative methods for testing out hypotheses, as the classic papers by Chamberlain (1965) and Lazarsfeld and Barton (1951) demonstrate. In the same way studies in the situational interpretative modality do not exclusively use phenomenological research methods. Indeed, studies in this genre are more effective when their methodology is eclectic. For example, action research is strengthened when accurate measures of effect on variables can be gauged. Obviously both methodologies have utility

in giving meaning to the assumptions underlying the research, the subject of investigation, and the surrounding milieu, so both are utilized within the critical theoretic modality.

This study employs each of the three research paradigms in analyzing its central themes. In chapter six the impact of the survey feedback intervention is assessed using the empirical analytic framework. This is because a single hypothesis derived from the literature on teacher education (chapter two) and OD (chapter three) is tested. That hypothesis is that a survey feedback intervention is effective in engendering a capacity for change in TTIs as measured along six dimensions. Chapter seven is a generative analysis of data collected on the nature of the change process in Canadian teacher education. The concern is with giving meaning to a particular situation, to generate instead of testing hypotheses, and as such lies within the situational interpretative modality. Finally, in chapter eight there is a brief attempt to critically analyze the assumptions underlying the study.

Even though the study reflects all three research paradigms, the methodology employed in the study lies outside the mainstream North American tradition. Typically in doctoral theses in education, statistical analysis is used to test (and sometimes to generate) hypotheses. However, the two questions which focus the study—Why do TTIs have problems in institutionalizing change? and Is survey feedback an effective strategy for inducing a problem-solving capacity in TTIs?--cannot for two reasons usefully be asked in a statistical way. First,

the evidence of the previous four chapters suggests that the knowledge base is not broad enough to allow the generation of questions specific and precise enough for statistical investigation. There must be a stage preceding this where sufficient conceptual and theoretical clarity is achieved and as a result hypotheses generated which are then open to quantitative testing. The extensive reviews conducted in chapters two and three clearly demonstrate that on the present state of knowledge we do not have a sufficient theory on change in teacher education or a theory of survey feedback in education that allows us to generate questions at that level of specificity. Second, the subjects of the study are not open to experimentation. It is highly unlikely that a dean of a faculty of education would allow controlled experimentation within his faculty to assess the utility of its change process. For these reasons, the methodology of the study is qualitative, and lies within the sociological tradition rather than that of educational psychology. Also, the research design of the study is action research rather than the more traditional quasi-experimental design. Because of the unusual nature of the methodology and research design these themes are developed in more detail in the following two sections.

The Qualitative Research Perspective

The research tradition most closely associated with qualitative methodology is phenomenology.[10] Phenomenology has a long and

10. The terms phenomenological, ethnographic and naturalistic are used interchangeably, implying a generic rather than a precise philosophic orientation.

distinguished tradition, particularly in Europe, but it has only recently achieved any widespread following in North America, and then mainly in evaluation studies (Hamilton et al., 1977; Guba, 1978). Phenomenology's influence on organizational theory and change finds its highest expression in the work of the European sociologist, Max Weber (see for example Weber, 1946, 1947). Weber used phenomenologically-based research methods (e.g., case study and comparative and historical methods) to build ideal types of organizations for analysis. He did this, as Greenfield (1975) says:

> By worming his way into the heads of bureaucrats, clerics and commercial men in order to discern logical connections among propositions expressing (their) beliefs about the world. (p. 71)

These worlds were then open for comparison and checking against reality.

It has been Greenfield (1973, 1975) who has made the case for the utility of phenomenology in social science research, particularly organizational theory. His 1975 paper, "Theory about Organizations", is a critique of the traditional scientific paradigm and an espousal of the phenomenological orientation. He says that:

> An organizational theory based upon understanding rejects the emphasis which much of contemporary social science places upon quantification . . . better manipulation of numbers cannot substitute for the emptiness of the concepts to which they apply. (p. 71)

He continues:

> If we move towards improved understanding in our research we might change our image of what constitutes the essential research tool and supplant the computer with Weber's notion of the ideal type. An ideal type provides us with an image of a social situation at a particular time and place. We may then surround this image with others made of different

> organizations or of the same organization at other times. By looking at these images comparatively by seeing them almost as the frames of a motion picture, we begin to understand our world better and to comprehend its differences and the processes of change occurring within it. (p. 72)

There are three reasons for centering the research methodology of this study within a phenomenological orientation. First, the field of investigation--change and teacher education is in a comparatively unsophisticated state, and as a result requires research which concentrates on the generation of theory and the development of hypotheses.

Second, a major concern of the study is to understand the gestalt of the organization; the theories of action that individuals within that organization hold, and the web of complex interactions triggered by intervention.

Thirdly, a major goal of the study is to formulate concepts which are rich and deep in meaning, strike a resonant chord with the actor and are congruent with what actually happened.

Action Research

It was Kurt Lewin (1946) who first articulated the idea of action research. Frohman Sashkin and Kavanagh (in French, Bell & Zawacki, 1978) have summarized Lewin's idea this way:

> There is, however, a second aspect to the research process defined by the model, as noted by Lewin (1946). In addition to providing effective solutions to specific client problems and developing new problem-solving skills for the client, a successful action-research project generates new behavioural science knowledge which is fed back into the professional bank of information and used by other behavioural scientists. This new knowledge is obtained through the research activity of the applied behavioural scientist. It may deal with general laws about human behaviour, or the type of problems with which the client is confronted, or the process of consultant-client collaboration. In any case, it addresses issues broader than the specific problems faced by the client. (p. 138)

The utility gained from organizing the study around the analytic distinctions between problem, theory and methodology becomes clearer here, for in action research in particular there is a tendency to confuse or blur the boundaries. Because as Rapaport (1970) says,

> Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework. (p. 499)

Stenhouse (1979) pushes the distinction a little further. He distinguishes between a research act, which is an action to further an inquiry and a substantive act, which is a desirable change in behaviour. The two are not exclusive, they can exist without each other, but the point is that action research is necessarily a substantive act. For the research is undertaken to benefit both the research community and those researched.

To make this point clearer and more concrete; this study is concerned with the problem of change in teacher education. To understand this problem the study initiated a change process within teacher education (which happened to be a survey feedback intervention), the intent of which was to enhance the problem-solving capacity of the institution. It is a moot point as who the major beneficiary should be as a result of this endeavour.

Stenhouse argues strongly for the client, Rapaport for social science. A thesis such as this is written for the research/academic community, although in the gestalt of the study there was (hopefully) some benefit to the participating institutions. The ethic of action research points to such mutual benefit.

Although action research is a strategy ideally suited to this type of study, there are a number of inherent problems. First, action research as a cyclical-sequential model implies several phases through which the research must pass. These phases are summarized in Figure 5:1.

Insert Figure 5:1 about here

These phases are very similar to the model of survey feedback used in the study, which is not surprising given that their development can both be traced back to the work of Lewin. However, the involvement of the researcher in an action role can be problematic. Action can at times take preeminence over research and vice versa, and this can lead to compromises in the researcher's role. The only solution again is self discipline by the researcher(s) and strict adherence to the research plan.

A second problem is that action research has no attendant research methodology. It draws its research tools eclectically from the behavioural sciences. As has already been mentioned, this study turns to sociology from its research tradition, and that raises the possibility of a conflict between the necessary action research sequence and the operating conditions of a specific investigatory technique. How this problem was confronted is discussed in the sections below.

Sources of Data

The study followed the conventions of established naturalistic inquiry[11] by drawing data from a) documentary evidence, b) participant

11. See for example Smith and Geoffrey, 1968; Hamilton et al., 1977; Guba, 1978.

Action-Research Phase	Emphasis	Aim
Scouting	Research	Arriving at a decision of whether or not to enter.
Entry	Action	Establishing a collaborative relationship, initial problem exploration, and selecting data collection/feedback methods.
Data collection	Research	Developing measures of organization variables and processes.
Data feedback	Action	Returning data to the client system for discussion and diagnosis.
Diagnosis	Research	Understanding the state of the system and problems.
Action planning	Action	Developing specific action plans--including determining who will implement the plans and how the effects will be evaluated.
Action implementation	Action	Implementing specific change plans.
Evaluation	Research	Determining effects and effectiveness of action implementation, leading to further efforts or to termination.

Figure 5:1. Summary of phases in action-research (From "Action Research as Applied to Organization Development" by M. A. Frohman, M. Sashkin, and M. J. Kavanagh, Organization and Administrative Sciences, Spring/Summer 1976, 7(1 & 2)).

observations and c) interviews. Questionnaires were not used in this study because the project had already used a long questionnaire--the GIL, which had aroused a negative feeling within the sample (mainly due to the length of time it took to complete). The three methods used to collect the data are now described.

Documentary Evidence

In the main the documentary evidence was of three types: i) general information about the TTI, ii) TTI specific data generated by the intervention, and iii) field notes by other members of the research team.

i) General information about the TTIs involved in the major project had been systematically collected by the project research team. These files were freely used to provide background data for this study. In the main they consisted of a) calendar descriptions of the TTI, its history, faculty and courses; b) documents describing the practice of teacher education in the province in which the TTI was situated; c) papers published by faculty (usually the dean) on the direction of the TTI; and d) reports or evaluations internal or external produced on the TTI.

ii) Data related to the intervention comprised a) internal memos written by the internal facilitator(s) or the dean about the introduction, development and maintenance of the intervention in the institution; and b) newsletters and memos which were generated as a direct result of the intervention, i.e., were evidence of better communication patterns, etc.

iii) Field notes and interview transcripts produced by the project research team. As the project researchers communicated with and visited insitutions so they produced field notes of their visits, and these were also made available to the present study. In addition, a number of interviews were held as part of the major project with a representative sample of faculty and significant educational others in the province, and these transcripts were also drawn on for this study.

Participant Observation

Participant observation is a well established research technique (Becker, 1958, 1960), which has provided the foundation for many fine studies of schooling (Hargreaves, 1967; Jackson, 1968; Lacey, 1970). Two critically acclaimed books on schools which used participant observation as their major research tool (Smith & Geoffrey, 1968; Rutter et al., 1979) suggest that the term itself is something of a misnomer. It would appear that the phrase "nonparticipant observation" would be a more accurate description of their research methodology. Both Smith and Rutter make much of their somewhat bland role within the school. Although they spent much sustained time in the school (Smith in particular) they deliberately adopted as nonreactive and unobtrusive demeanor as they could.

This role cannot apply to the action researcher, for the term by definition implies involvement. There is potential conflict in the dual role of consultant and researcher which is placed on the individual in this situation. Becker and Geer (1960) gloss over this particular

problem and prefer to concentrate on the analytical problem of handling the data obtained from participant observation. Questions of the contamination of the data occasioned by their role as participant observers appear unimportant to them. However, it is of critical importance in the study, and to naturalistic research in general (Everhart, 1977). To use a concrete example, it is difficult to estimate the influence of the consultant on the intervention process. In retrospect, it would have been possible in some institutions for me as the consultant to have played a more directive and proactive role and to have moved the pace of the intervention along more quickly and assertively than was being done by the internal facilitators. If I had done that, then would the impact of the intervention have been the result of the treatment or of the presence of the consultant? This is a difficult point to resolve, particularly as I was neither stranger nor friend (to use Everhart's 1977 distinction) in the institutions I worked with. My role as consultant and my deliberately open manner placed me in the role of friend, but my time spent in each institution did not warrant the label.

As it was, I deliberately adopted a reactive stance when on field visits and when consulting with the institutions. I did that partly for the research reasons outlined above and partly because of entry problems[12] which the project encountered when working with individual institutions. In general I attempted on field visits to be pleasant, open, curious yet not inquisitive, sympathetic and nonjudgmental. I readily

---

12. This point is discussed in more detail in the next chapter.

provided technical advice and assistance when it was requested, gave considerable support and collaborated on strategies. But rarely did I proffer unasked for opinions or suggest new strategies or approaches out of context. In retrospect this attitude may have been detrimental to the impact of the intervention, but as a research strategy it is the only tenable stance to adopt.

The research aspects of the participant observation fall into two main phases--exploratory and targeted visits. The exploratory visits occurred at the beginning of the study when the intent was to obtain as clear a picture of the milieu of the institution as possible. Faculty meetings were attended, structured and informal conversations were held with faculty and students, and in some cases classes were attended.

The more targeted visits occurred towards the end of the study, when the intent was to test out ideas and hypotheses generated by earlier visits. Usually these visits would involve structured interviews or attendance at specific meetings or the observation of specific events. In this way the field visits became more focused and specific as the study progressed.

Field notes were generally of two types. Notes were made at the end of each critical incident, e.g., conversation, meeting, etc., and where possible notes were taken during the incident or the event tape-recorded. This ensured a chronological record of field observation as close to the time of the event as possible. In addition, at the end

of every day, a reflective commentary on the day's events would be dictated, which was an initial attempt to make sense of the data and to generate questions and guidelines for the following day's observations. Many of the field note extracts quoted in chapter seven were made at times like this.

Interviewing

Interviewing is the other major tool of the researcher who uses qualitative methods. Of special importance here is the use of the focused interview. This was the phrase coined by Merton and Kendall (1946) to describe the type of interview whose distinctive quality is the prior analysis of the subject matter of the interview by the researcher. The interviewer having made a content analysis of the situation focuses on the subjective experience of the interviewee in order a) to test the hypotheses derived from the content analysis, and b) to ascertain unanticipated responses and produce new hypotheses.

Merton and Kendall (1946), in the classic paper on the topic, describe the distinctive characteristics of the focused interview thus:

> i) Persons interviewed are known to have been involved in a particular concrete situation: they have seen a film; heard a radio program; read a pamphlet, article or book; or have participated in a psychological experiment or in an uncontrolled, but observed, social situation.
>
> ii) The hypothetically significant elements, patterns, and total structure of this situation have been previously analyzed by the investigator. Through this content analysis he has arrived at a set of hypotheses concerning the meaning and effects of determinate aspects of the situation.

iii) On the basis of this analysis, the investigator has fashioned an interview guide, setting forth the major areas of inquiry and the hypotheses which locate the pertinence of data to be obtained in the interview.

iv) The interview itself is focused on the subjective experiences of persons exposed to the preanalyzed situation. The array of their reported responses to this situation enables the investigator

a) to test the validity of hypotheses derived from content analysis and social psychological theory

and b) to ascertain unanticipated responses to the situation, thus giving rise to fresh hypotheses. (p. 541)

As Merton and Kendall continue to note in their paper, the focused interview is particularly useful in:

i) Specifying the effective stimulus

ii) Interpreting discrepancies between anticipated and actual effects

iii) Interpreting discrepancies between prevailing effects and effects among subgroups--"deviant cases"

and

iv) Interpreting processes involved in experimentally-induced effects. (p. 542)

As will be appreciated, the ability to gather this type of information makes the focused interview particularly appropriate for use in a study of this type.

Merton and Kendall continue in their paper to specify a number of criteria to guide the interviewer during the interview and in constructing the interview guide. They specify criteria of nondirection, specificity, range and depth to guide construction and management of the

interview. A further particularly useful distinction they make is between unstructured, semistructured and structured questions. Unstructured questions are those free of stimulus and response, e.g., "What impressed you most in this film?"; semistructured are those where either the stimulus or the response is structured, but not both, "What did you learn from this book that you didn't know before?" (response structured), or "What did you feel about seeing that motor accident?" (stimulus structured); and structured questions are those where both stimulus and response are structured, "As you listened to the lecture did you feel it was more entertaining than informative?".

Unstructured questions possess their greatest utility during the opening stages of the interview where the interviewee is constructing his/her own definition of reality. Usually it is necessary for the interviewer to assume more control at later stages of the interview to satisfy the other criteria of specificity, range and depth, but even here questions can fruitfully be semistructured. It may be necessary to become quite specific, i.e., specify stimulus and response towards the end of the interview, particularly if the interviewer was unable to follow cues on specific aspects of the situation during the interview.

The interview schedule used in the study (see Appendix 1) followed these principles. It was constructed to allow the interviewee as free a range of response as possible to the initial question. This allowed their perception of the intervention and construction of reality to emerge unhindered by the interviewer's prompts, cues or perceptions.

As the interview progressed the questions focused increasingly on specific aspects of the intervention of import to the researcher. At the end of the schedule there were some specific questions which would only be asked if a response to them had not emerged naturally during the interview.

Interviews were conducted as far as possible at the convenience of the interviewee, usually in their own office, were recorded (with two exceptions) on tape and were later transcribed. An attempt was made (not always successful due to time pressure) to talk informally with the interviewee before the interview so that we were both at ease for the critical initial questions. In general the interview schedule was followed in sequence, certainly the questions were asked verbatim, but response cues were characteristically followed, even if that meant deviating from the sequence of the schedule. Ambivalence, incongruent body language and other nonverbal cues were more often than not followed up during the interview, or if not were noted and the data fed into the subsequent analysis of the interview. The interviews took on average 45 minutes to complete.

Handling the Data

In his classic statement on the problem of inference and proof in participant observation, Becker (1958) raises the age-old bugaboo about handling qualitative data:

> Faced with such a quantity of "rich" but varied data, the researcher faces the problem of how to analyze it systematically and then to present his conclusions so as to convince other scientists of their validity. Participant observation (indeed, qualitative analysis

> generally) has not done well with this problem, and the full weight of evidence for conclusions and the processes by which they were reached are usually not presented, so that the reader finds it difficult to make his own assessment of them and must rely on his faith in the researcher. (p. 653)

This truism behoves the qualitative researchers to be fastidious in the way they handle their data. The methodological norms applicable to qualitative research are put by Becker in the same paper:

> We can distinguish three distinct stages of analysis conducted in the field itself, and a fourth stage, carried on after completion of the field work. These stages are differentiated, first, by their logical sequence: each succeeding stage depends on some analysis in the preceding stage. They are further differentiated by the fact that different kinds of conclusions are arrived at in each stage and that these conclusions are put to different uses in the continuing research. Finally, they are differentiated by the different criteria that are used to assess evidence and to reach conclusions in each stage. The three stages of field analysis are: the selection and definition of problems, concepts, and indices; the check on the frequency and distribution of phenomena; and the incorporation of individual findings into a model of the organization under study. The fourth stage of final analysis involves problems of presentation of evidence and proof. (p. 653)

It is this process of continually observing, inquiring further and then seeking to explain (Parlett & Hamilton, 1972) which are the hallmark of the qualitative researcher who is concerned to generate theory.

This argument is taken a stage further by Glaser and Strauss (1967), in their book, The Discovery of Grounded Theory. They confront the methodological dilemma of the qualitative researcher face on when they write:

> While verifying is the researcher's principal and vital task for existing theories, we suggest that his main goal in developing new theories is their purposeful, systematic generation from the data of social research. Of course, verifying as much as possible with as accurate evidence as possible is requisite while one discovers and generates his theory--but not to the point where verification becomes so paramount as to curb generation. Thus, generation of theory through comparative analysis both subsumes and assumes verifications and accurate descriptions, but only to the extent that the latter are in the service of generation. Otherwise they are sure to stifle it. (p. 28)

They use the term "grounded theory" to apply to theory directly generated from experience acquired in the course of social research.

Glaser and Strauss advocate the use of the "constant comparative method of qualitative analysis" in preference to Becker's methodology because they maintain that the process of theory generation is coexistent with field work rather than occurring as a sequential operation. They write:

> The generation of theory, coupled with the notion of theory as process, requires that all three operations be done together as much as possible. They should blur and intertwine continually, from the beginning of an investigation to its end. (p. 43)

They refine the methodology and articulate it more concretely later in the book:

> We shall describe in four stages the constant comparative method: (1) comparing incidents applicable to each category, (2) integrating categories and their properties, (3) delimiting the theory, and (4) writing the theory. Although this method of generating theory is a continuously growing process--each stage after a time is transformed into the next--earlier stages do remain in operation simultaneously throughout the analysis and each provides continuous development to its successive stage until the analysis is terminated. (p. 105)

The resultant grounded theory can either be presented as a well-codified set of properties or in a running theoretical discussion using conceptual categories and their properties. Theory in process is usually a substantive theory in so far as it has been developed for a specific area of inquiry. This is the level of analysis with which the study is concerned. It is possible, though, to transform substantive theory into formal theory by applying the concepts to a conceptual area of inquiry. For example, chapter eight outlines a substantive theory of the problem of change in teacher education. This could be developed into a formal theory of change if the focus was on the concept of change rather than on the substantive area of teacher education.

One further point needs to be added. Probably the most impressive body of methodological insight into qualitative research by an educational researcher has been produced by Louis Smith. Mention has already been made of his and Geoffrey's The Complexities of an Urban Classroom. In that and each of his subsequent books Smith has appended a full and rich methodological description of his research methodology which collectively have served to refine the technique of qualitative research. In one of these monographs (Smith, 1972, in Hamilton et al., 1977) Smith adds a further technique to assist researchers in the analysis of qualitative data, viz., "skimming the cream". It is a simple procedure which involves (after considerable data collection and immersion in the field), brainstorming with colleagues (without reference to field notes, files, tapes and memos), in response to a

general question such as, "What are the major things we have learned from our year in the field?" Smith asks:

> In this simple procedure can the really significant rich items be obtained? Do the laboured procedures suggested by Becker et al. (1961) in the Boys in White analysis and by Glaser and Strauss (1967) in their constant comparative method yield more creative, more comprehensive, and more reliable theory and interpretations? At the moment our guess is that the differences in creative propositions is probably minimal. Some comprehensiveness is probably lost by "cream-skimming". The reliability of interpretation, or perhaps better, the confidence in the interpretation, probably drops off more sharply. For students of methodology this is obviously a testable empirical problem. (p. 213).

In handling the data gathered from documents, observation and interviews I have attempted to follow the models described above. How it was specifically done in this study is the topic of the following two sections.

Days in the Field

The field work for the study extended from December 1978 to September 1980. During this time I made a total of 27 field visits which consumed a total of 43 days. This included the two workshops which were held by the project team to provide training for the internal facilitators. A breakdown of the number of visits and days spent with each group of institutions is found in Figure 5:2. The figure represents the total time I spent doing participant observation and conducting interviews. The figure does not refer to the total number of days spent by the project team in the different institutions, simply to the time I myself spent in collecting data for this particular study.

Insert Figure 5:2 about here

It is evident from Figure 5:2 that I spent most time observing in the Feedback and Action Planning group of institutions. There are two reasons. First, these were the institutions for which I had responsibility as a member of the project team, and second, from early on in the research it became apparent that some institutions more than others wanted feedback, so naturally I concentrated on those institutions. They in effect became a self-selecting sample and comprise the four TTIs in the Feedback and Action Planning group. The figure reflects the amount of participant observation done in each institution.

Figure 5:3 refers to the number of interviews conducted at the various institutions. Similarly here there is a heavy concentration of interviews in the Feedback and Action Planning groups. The reason for this is obvious--as the institutions in the Handback and Handback and Action Planning groups did not exhibit the operating conditions necessary for a feedback intervention they did not warrant the research time devoted to those institutions which did. Those interviewed in the Data Handback/Action Planning group were solely the internal facilitators associated with the TTI. Only one interview was held with faculty from the Data Handback group.

Insert Figure 5:3 about here

	Total # of Days per Group		Total # of Visits per Group
DATA FEEDBACK & FOLLOW THROUGH GROUP	26		16
DATA HANDBACK & ACTION PLANNING GROUP	6		6
DATA HANDBACK GROUP	5		5
Workshop Days	6		
TOTAL # OF DAYS IN FIELD:	43	TOTAL # OF VISITS:	27

N.B.: 4 institutions per group.

Figure 5:2. Days in the field: Participant observation from December 1978 to September 1980

	Total # of Focused Interviews Conducted	
DATA FEEDBACK & FOLLOW THROUGH GROUP[1]	14	(19)[3]
DATA HANDBACK & ACTION PLANNING GROUP	5	(16)[3]
DATA HANDBACK GROUP[2]	1	
# of focused interviews conducted	20	(35)
Total # of interviews used as data		55

1. Interviews only conducted in three institutions.
2. Interviews only conducted in one institution.
3. Figures in parentheses refer to background interviews conducted as part of project.

N.B.: Four institutions per group.

Figure 5:3. Days in the field: Interviews, May 1980.

In addition there were other interviews conducted for the project, the transcripts of which formed part of the data base. These interviews were designed to gather background information about the individual TTIs. An example of the interview schedule used to gather this information is found in Appendix 2. In this way an additional 35 interviews were added to the 20 focused interviews, giving a total data base of 55 interviews. The distribution of the background interviews within the sample is indicated in parentheses on Figure 5:3.

It was data gathered from the interviews and the participant observations, together with documentary evidence gained from the larger project, and analyzed using the techniques outlined in this chapter that provide the basis for the discussion in the following two chapters. Before turning to this discussion, the procedures for analyzing and presenting the data are discussed.

Procedures

The previous sections have made an argument for employing multiple research modalities in the study, described the qualitative research perspective, and reviewed the problems of action research. In addition, the sources of the data, *viz.*, documents, observation and interviews were described, traditional approaches to handling the data outlined, and in the previous section the number of days spent in the field and the number of interviews conducted were quantified. The purpose of this and the following section is to describe the procedures I used to analyze the data and present the evidence in the study. This

section is concerned with procedures, the following one with evidence.

It was in chapter four that the sampling procedures used in the study were described. Twelve institutions comprised the sample, six in Western Canada, six in Eastern Canada. In each of these instituions one or two internal facilitators were identified, and I depended on these people for my initial background to the institution, and for identifying appropriate individuals and subgroups in the institution. They also provided me with much of the documentation on their institution, and educational policy in their province.

It soon became apparent that not all the institutions exhibited the same degree of readiness towards the intervention. For research purposes the sample was divided into three groups, viz., the Data Handback, Data Handback and Action Planning, Data Feedback and Follow Through as described in chapter four. The research effort varied from group to group.

In the Data Feedback and Follow Through group the time spent on site or interacting with the internal facilitators varied from seven to 17 days. The participant observation tended to fall into two stages. The first stage was mainly exploratory and concentrated on data gathering. Initially I allowed the internal facilitators to guide my observations and conversations. As my familiarity with the institution increased, I became more directed in my observations, using the time to test and reject categories. After feedback, participant observation entered a second phase where I concentrated on assessing the impact of the intervention. Occasionally this

research activity was conducted at the same time as I was discharging my responsibilities as a consultant, sometimes I was on site purely for research purposes. The interviews in this group were arranged by the internal facilitators. Besides the internal facilitator, the dean was interviewed and a representative group of faculty selected by the internal facilitator so as to provide a diverse range of opinion. The number of focused interviews varied, ranging from three to seven.

In the Data Handback and Action Planning group there was little formal participant observation. Only one site visit was made to each institution (two in one instance), and on these occasions the interviews were conducted. In these institutions only the internal facilitator(s) were interviewed. Apart from one focused interview no formal research for the study was carried out at institutions in the Data Handback group.

It is difficult to satisfactorily describe in a linear sequence the phases in which the data were analyzed. It will be easier to do when the analytical methods used in this study, viz., category formulation, saturation and triangulation have been described. Becker's and Glaser and Strauss' ideas on category formulation have already been outlined. One immerses oneself in the subject of the study, and from the beginning starts to establish categories into which one can order the data. Establishing the categories is not difficult, the critical process being the testing and rejecting of categories. To do this, data is taken from differing sources and fed into the category.

If the category can hold data from differing sources then it has passed the preliminary test, and can be subsequently used with some confidence. For example, as a result of field work in one institution, I established the category of "Bureaucratization" as a barrier to change in teacher education. Having established the category as a result of an interview, I then proceeded to test it out in interviews and conversations with others in the institution. The category held, so I added it to my list of barriers to change. Later, in the course of research I was alerted to this category, and began to test it against data from other institutions. In those situations the category did not hold, it had no generalizable power, so it was rejected.

It is difficult to know how many tests to give a category, what critical frequency to use in the formulation of concepts. Glaser and Strauss (1967) use the term saturation to describe this process.

> Saturation means that no additional data are being found whereby the sociologist can develop properties of the category. As he sees similar instances over and over again the researcher becomes empirically confident that a category is saturated. (p. 61)

It is difficult to estimate the number of incidents required to saturate a category; because of the variety of differing situations and categories no numerical number can be given. Glaser and Strauss' (1967) criteria are:

> a combination of the empirical limits of the data, the integration and density of the theory, and the analyst's theoretical sensitivity. (p. 62)

In this study multiple incidents were required to saturate most

categories. It is conceivable, however, to saturate a category on the basis of one incident. There is also the problem of over-saturation, of getting too close to the data, as Everhart (1977) pointed out.

Triangulation is a technique used in the study to corroborate the veracity of an individual account of a situation. If one interviewee has described a situation, then it is important to check this evidence against other data pertaining to the same situation. This is the technique of triangulation. For example, a dean in one of the faculties initiated a process on the basis of feedback which was designed to reduce goal ambiguity in the faculty. This initiative faltered, and I was concerned to understand why. I talked with the dean at some length about the incident, and followed this conversation with half a dozen other faculty, in order to "round out" the incident. Using this important issue as a pivot for a series of conversations illuminated aspects of the culture of that particular institution most effectively.

This discussion on the integrity of categories leads to a consideration of the validity of these categories. It is a mistake to suppose that the concept of validity applies only to quantitative research. The techniques outlined above demonstrate that the qualitative researcher is concerned about a) the integrity of his or her categories, as in the example of the dean's initiative quoted above, and b) the generalizability of the category, as in the example of bureaucratization as a barrier to change. In fact, grounded theory

is a methodology particularly suited for the establishing of valid concepts. In a recent prize-winning paper, Dunn and Swierczek (1977) adopt a grounded theory approach to planned organizational change. They maintain that:

> Grounded concepts are likely to enhance the information value of theories of planned change, providing both a methodological and practical justification for their use. The application of grounded theories promises to contribute to improvements in the degree to which findings 1) reflect conditions actually present in particular change efforts (internal validity); 2) typify conditions actually present in other change efforts (external validity); 3) contribute to the generation of new concepts by constantly comparing information obtained by different methods (reflexivity); and 4) promote understanding among groups with conflicting frames of reference, including change agents, change sponsors, and change targets (translatability). (p. 137)

We are now in a more informed position to return to the sequence in which the data was analyzed. The following steps were followed systematically and self-consciously.

1. Immersion in the data and the production of categories. This involved continually thinking about the data as it was collected, and not being afraid to establish, test and reject categories.

2. Having established a category, attempts were made to saturate it.

3. When a category became saturated it was used either to test or generate a hypothesis.

4. Finally, individual categories were linked either to provide an assessment of a hypothesis (as in chapter six), or to generate a series of hypotheses (as in chapter seven).

This description echoes Becker, and does less than justice to the influence of Glaser and Strauss' notion of joint collection coding and analysis. However, there were chronological distinctions between these activities; collection of data was usually done independently of coding and analysis, yet these activities followed quite quickly, often in a coffee shop between bouts of data collection. This is how the activities were intertwined. Between field visits, consolidation occurred, and at regular if infrequent intervals, usually prior to the preparation of a paper or report, skimming the cream marked a more concrete advance in the generation of theory.

The next section outlines in more detail how the data was coded and used to substantiate the arguments used in the following two chapters.

Data as Evidence in the Study

The arguments and contentions made in the following three chapters are based on the data gathered during the course of the investigation and handled in the ways described above. The question now arises, how is this mass of analyzed data used to provide evidence from which conclusions can be drawn? The way this is done reflects the researcher's ability to resolve the problems of inference and proof.

In the following chapter, "The Impact of Survey Feedback", evidence is sought to sustain or disprove the hypothesis that a survey feedback intervention can engender a problem-solving capacity in TTIs. A problem-solving capacity was defined along six dimensions, and the effectiveness of the intervention was to be gauged by instances of

change in these dimensions within each institution.

One of the limitations of the study is that there are no formal pre and post treatment measures for the impact of the intervention. It is a result of intervening in a natural setting with a subject group not that amenable to investigation, and a research design emerging as the study progressed. This is one of the problems of intervening in natural research settings that Ellsworth (1977) has so well pointed out.

The problem is how to make creditable inferences about the impact of the intervention without formal baseline measures. In order to make the impact of the intervention more readily understandable I wanted to express the movement along the dimensions numerically. In the first instance I was going to establish from the data situations relevant to each institution, on each dimension, reflecting the before and after treatment situation. It appeared to be a difficult task, especially as I wanted to make comparisons across institutions. However, I decided to do this. When I began working with the data and examining the effects of the intervention on the sample I found that the quality of impact was similar across institutions and could be expressed in terms of discrete intervals described by generic criteria, as seen in Appendix 3. At the same time I realized from the data that the institutions displayed a similar lack of problem-solving capacity. This, together with the fact that I was looking for effects engendered by the intervention made the need for a baseline measure less important. However, I was careful to ensure when I was collecting the

data that the effect was related to the perceived impact of the intervention and was not the result of a different organizational contingency. The net result is that a numerical weighting was attached to the instances of change on each dimension, as outlined in Appendix 3. These numerical values were then averaged for each dimension and conclusions were drawn about the impact of the intervention on individual dimensions.[13] In reporting this in the following chapter not only are the numerical values, but examples from each institution are given to demonstrate the criteria they had met. In this way an assessment and illustration of the impact of survey feedback is given. It is important to note, however, that the numerical values have only a heuristic value, and the quality of effect of the intervention on the various dimensions can only be gauged by reference to the actual instances of change.

In chapter seven, "The Problem of Change in Teacher Education", the process becomes more difficult. Because the data are used to generate categories rather than to test them. Here is where the burden of inference and proof is especially heavy. Following the process outlined in the previous section, categories were established, tested against the data, and if there was sufficient evidence to

---

13. In the effort to generalize about the impact of the intervention, the assessed impact was averaged across institutions. This limits the credibility of Table 6:1, because the technique assumes that the nature of change in each insititution was similar, and no evidence is presented to support this claim. However, the instances quoted in chapter six to support the weighting assigned to each institution on the dimensions, goes some way to alleviating concerns about this unorthodox technique.

saturate the category it then became useful for the generation of hypotheses and theory. Chapter seven presents a series of hypotheses about the nature of change in teacher education based on categories derived from the data. The evidence is presented in this way; first, the hypothesis is outlined and discussed, and then examples drawn from the data are given to support the contention and flesh out detail.

Because the data is coded, it is easy to relate the examples given in the test to the mass of material from which it is derived. Each illustration or example is followed by three letters or figures. The first refers to the insitution, the second identifies it as either interview transcripts, field notes or documentary evidence, and the final figures refer to its position in that body of material, e.g., page 4 of interview 5. By coding and presenting the material in this way, the plausibility of the qualitative data is enhanced.

A final point needs to be made about the anonymity of the material. In some instances arguments have been supported by describing instances rather than by direct quotation. This has been done to protect the anonymity of the institutions and respondents involved. Similarly, no direct reference is made to individual institutions. For the same reason, the examples used in chapter six are not referenced, for here the categories and the dimensions have already been established and there is no utility to be gained by providing information which may identify the group or individual institution.

Before the substantive discussion of the following three chapters occurs it is necessary to discuss some of the limitations to the study. This is done in the following final section of the chapter.

Limitations to the Study

There are essentially three types of limitations to this study. Those which have occurred in connection with data collection and analysis, those associated with the application of the model, and those which have occurred as a result of the peculiar nature of TTIs. Only the former set of limitations are discussed here, the latter two are discussed more appropriately in their respective chapters.

Although the data were analyzed in the manner described in this chapter, there are still a number of significant and limiting problems involved in collecting and analyzing qualitative data, particularly in this study. Three of the most substantial, viz., lack of baseline measures and control, inexperience, and inadequacies in the data base, are discussed here.

There was no systematic attempt at the beginning of the study to assess the institution along the dimensions thought to be affected by the intervention. The reason for this is simple enough, the conceptual development of the study was not sufficiently advanced in December 1978 to allow this type of measure to be taken. I was fortunate enough, however, to have access to the reports produced by the project team on the individual TTIs (particularly those in the Feedback/Follow Through group) which provides quantitative and qualitative data along dimensions such as climate, problem solving and communication. But even this

information does not ensure that any observed difference in behaviour in the institution has occurred as the result of the independent variable. Despite the relatively sophisticated techniques now available for the analysis of qualitative data, the burden of inference and proof still remains a heavy one.

These problems are compounded when the researcher works alone, particularly when the neophyte is engaged on a doctoral dissertation. It is disconcerting to read the books and articles referred to in this chapter and realize the problems that the leaders in the field encounter in data collection and analysis despite their experience, sophisticated research designs, and their interaction with colleagues engaged in the same piece of research. To someone as inexperienced as I, grappling alone with an evolving research design it is very discouraging. The questions which I continually asked myself, how balanced is that judgment? how secure is the interpretation? can that inference be made? has a crucial point been missed? were the right questions asked?--are very challenging and unnerving.

Associated with these concerns is another somewhat more tangible--the adequacy of the data base. Realizing that Becker had 5,000 pages of single-spaced field notes for one study (Becker, 1958, p. 653) and that the field work for his Making the Grade (Becker, Geer & Hughes, 1968) commenced in 1955 and took six years to complete is rather chastening, when one compares it with the 20-month duration and 43 days in the field for this particular study. Was this period of time in the field and the 55 interviews sufficient to provide saturation

for the categories, concepts and hypotheses that emerge in the course of the next two chapters? The comparison with these major sociological studies is invidious. Given, however, the intent of the study, which is to be exploratory and generative, sufficient time has been spent in the field and data collected to sustain the tentative hypotheses and emerging substantive theory in the following chapters.

CHAPTER SIX

The Impact of Survey Feedback

This chapter assesses the effectiveness of the Survey Feedback intervention in engendering a problem-solving capacity within the institutions of the sample. This assessment is particularly timely as the dominant mode of organizational change in higher education, according to the literature as was discussed in Chapter 2, is predicated on the notion of institutional self-renewal. It may well be a chimera, for as will be seen in the final chapter, it is more appropriate to characterize change in teacher education within a concept of drift. Irrespective of this, self-renewal is regarded as an important strategy for change in higher education, and this chapter constitutes the first evaluation and description of a comprehensive survey feedback intervention in teacher education.

Impact of the Survey Feedback Intervention

Earlier in the study the concept of a 'capacity to change in TTIs' was operationalized into six dimensions. These being,

Communication

Goals

Problem Solving

Decision Making

Climate

Implementation

The hypothesis was that the survey data feedback intervention would positively affect these dimensions in the institutions of the sample.

In the absence of a formal baseline measure the data was searched for instances of change on every dimension for each institution. These

instances were related to a criteria as outlined in Appendix Three and described in the previous chapter. A numerical weighting was attached to each criteria and each point on the 1 to 5 scale reflected enhanced effect, a zero equated to no effect, and a negative score to an adverse effect. This gave a rough index of the impact of the intervention along the dimensions, as can be seen in Table 6:1.

Scores were obtained for those institutions which had experienced handback and action planning as compared with those who had experienced feedback and follow through. As has been previously explained, no data were collected on those institutions who only received handback.

Insert Table 6:1 about here

Handback and Action Planning Group

As expected, those institutions who received handback and action planning exhibited far less impact than those who had feedback and follow through. The differences between the two groups are quite evident, which suggests that unless a structured approach to feedback is taken then the impact of such an intervention on the capacity for change in TTIs is extremely limited.

Amongst the institutions in this group, communication was the only dimension that can claim to have been affected, and that was only 1.3 on the scale. The new behaviours that occurred along this dimension as a result of the intervention, were the introduction of a departmental newsletter in one institution, and an increase of informal communication and the formal discussion of communications in a faculty meeting in

Table 6:1

Impact of Survey data feedback interventions[1] on dimensions associated with a capacity for change

Dimension	Rating (0-5) of TTIs with Hand Back and Action Planning	Rating (0-5) of TTIs with Feedback and Follow Through
	N = 3[2]	N = 3[2]
Communication	1.3 (0, 2, 2)	3 (4, 3, 2)
Goals	0.7 (0, 0, 2)	3 (5, 2, 2)
Problem Solving	0 (0, 0, 0)	3.3 (4, 3, 3)
Decision Making	0.3 (0, 1, 0)	2.7 (3, 2, 3)
Climate	0 (0,-1, 1)	-1 (-2,-1,0)
Implementation	0.3 (0, 0, 1)	-0.7 (-2,2, -2)

1. Data not available on those institutions where only data handback occurred.

2. Data only available on 3 of the 4 institutions in this category.

another. There was so little evidence of change on the other dimensions that they can be ignored for present purposes.

Feedback and Follow Through Group

There was much more evidence of change in those institutions which participated in feedback and follow through. In particular on the dimensions associated with communication, goals, problem solving and decision making.

All insitutions in this group exhibited enhanced patterns of communication as a result of the intervention. It varied between institutions, ranging from an increase in informal discussions to systematic attempts to increase communication. At the lowest level (+2 on the criteria scale), all the faculties in this group were, after feedback, more task-oriented in their informal conversations with peers, and there was evidence of faculty actively searching out informal communication with others beyond their social group. The communication was generated by and predicated on issues identified as a result of feedback. In each TTI there was evidence of departments becoming more conscious of communication, which resulted in either the posting of minutes, attempts to improve the quality of meetings at this level, or more effective use of information during meetings. At a higher level (+3 on the scale) there were instances of departments actively working on aspects of the feedback data, and of groups of faculty engaging in more fruitful dialogue on substantive issues than they claim they had done before. In one faculty there was evidence of a concerted and systematic attempt to improve the quality of communication (+4 on the criteria scale); fewer faculty

meetings were held, the Dean radically altered aspects of his communication style, departmental retreats were funded and communication became the major responsibility of a senior faculty committee. These examples give a flavour of the impact of the intervention on the dimension of communication at varying levels. When taken across all the institutions of the sample, communication is the one dimension which exhibits the most impact.

The dimension of goals also reflected considerable change amongst the institutions in the feedback and follow through group, particularly in one instance. In all institutions there was evidence of minor instances (+2 on the criteria scale) of improvement in goal definition. For example, there were departments in all institutions who consciously used the feedback data to define their purpose more effectively. Student perceptions from the feedback report, and the aggregated data across the sample were particularly useful in this respect. In one institution there was a major and radical attempt to achieve goal consensus within the Faculty (+5 on the scale). This effort occurred as a direct result of feedback, and all faculty and departments were involved in a process of articulating future directions. That it was only partially successful is a reflection on the milieu of the institution rather than the effectiveness of the intervention.

Problem solving was the dimension which exhibited the most positive impact in the Feedback and Follow Through groups (3.3 on the scale). This dimension reflects the institution's ability to identify and react to problems in a deliberate and rational way. In all of the institutions there were major concrete instances of rational problem solving

(+3 on the criteria scale). In one of the institutions the formal leaders of the faculty made a serious complaint about internal grading procedures. Instead of an emotional reaction (characteristic of meetings in that institution) faculty struck an ad hoc committee that researched the issue thoroughly and reported back in detail. This report demonstrated that the administration has based their judgment on inadequate research. The ad hoc committee at the same time proposed certain policies with regards to grading to prevent the problem that had just occurred; these proposals were considered and then adopted by faculty. This type of behaviour was previously atypical of this faculty, and was prompted by the data emanating from the feedback. There was another institution where there were major instances of rational problem solving (+3 on the scale). These instances included the use of an ad hoc committee to engage in problem identification as a result of feedback, and a number of examples of committees actively seeking information from the feedback report and from other sources on which to base their decisions. The other institution in this group matched the criteria for making systematic attempts at improving problem solving at a departmental level (+4 on the criteria scale). Departments there were actively encouraged by the Dean to organize departmental retreats to enable them to work on the feedback data for problem identification purposes. Two new Head of Department appointments were made during this period, and persons with this type of orientation were actively sought and appointed. In addition, a two-day retreat was organized where an ad hoc group of faculty, including the internal facilitators, worked on problem identification and action planning based

on the feedback report. These examples taken from one institution mark the most consistent attempts by an individual institution in the sample to work on rational problem solving.

This series of examples of rational problem solving were not matched, however, by a complementary movement on the dimension associated with decision making. In one institution there were only minor instances (+2 on the criteria scale) of improved decision making and these instances reflected various attempts to use consensus as a basis for decision making, both at a faculty and department level. These changes could not be said to constitute a major change in faculty norms. The other two institutions exhibited increased awareness of decision making which resulted in deliberate action (+3 on the criteria scale), but in contrasting ways. On the basis of the intervention, one institution pursued a policy of devolving responsibility for decision making onto departments and faculty committees, instead of centering it within the Dean's office. In the other institutions, however, the Dean deliberately took increased control of decision making, again basing his decision on information derived from the feedback report. He apparently felt that the situation in his faculty needed decisive centrally-controlled action, and as a result made a number of wide ranging unilateral decisions. Although these two examples contrast, and although the latter could be regarded as a negative reflection of decision making, both instances reflect more concerted approaches to decision making which occurred as a result of feedback, or at least were justified by reference to it.

The results for climate were surprising, particularly as in all three institutions in this group the intervention was seen to have a

negative or no impact on this dimension. To an extent this can be explained by the fact that it is people's attitudes and perceptions that are so hard to change. Another reason could be the feeding back of negative data to institutions that already have a suspicious climate. That information, instead of providing a stimulus to change, might have reinforced already pessimistic attitudes towards the institution. A further plausible explanation is that when people break out of usual patterns of behaviour they inevitably become less competent until the new behaviour is learned as thoroughly as the old. This period of dissonance, which predictably occurs when something new is tried, can also have a strong negative influence on the climate. This will continue until the innovation is institutionalized and has become part of the culture of the institution. That these outcomes were seen to be consistent across the whole group suggests that such an intervention does not necessarily improve the climate of the institution at the time of intervention, although this may well change over time.

The intervention also had a negative impact on the dimension associated with implementation. This result is not inconsistent with the theoretical arguments of the study. In only one of the institutions was there evidence of more effective implementation. This occurred when a department previously opposed to a proposed innovation within the faculty decided to collaborate on the initial implementation of this new program (+2 on the criteria scale). This turnabout was apparently partly the result of that department's analysis of aspects of the feedback data. The negative scores on this dimension associated with the

two other institutions in this group reflect the apparent failure of two major innovations which were initiated as a result of the feedback process. These two instances which were major initiatives initiated by the deans of the faculties concerned, viz., the attempt to achieve administrative change, and the proposal for future directions, have already been described. The reasons for the failure of implementation of these initiatives are conjectural, and because of their relevance to the major theme of the study are discussed in more detail in the next chapter. However, it is almost certainly the case that the deans concerned did not pay enough attention to the milieu of the institution. Whatever the reasons may be, these results emphasize that the implementation of change is a very difficult and complex process to achieve.

To summarize, the impact of survey data feedback is in no instance pervasive, but more effective when the components of the intervention are conscientiously employed. This is seen by the improved results of the feedback group of institutions over the handback group. In particular, the intervention appears to positively affect the dimensions associated with communication, goals, problem solving, and decision making.

Unanticipated Outcomes

The intervention had an impact on other aspects of institution's functioning. These effects are called the unanticipated outcomes of the

intervention, as they were not part of the original hypothesis which predicted impact along the six dimensions discussed above. These outcomes, viz. consciousness raising, feedback as a legitimizing agent, differential impact, and data as confirmation, were widespread amongst the two groups. So much so that in the discussion below no reference is made to the number of institutions involved in a particular outcome. These categories are so well saturated (to use Glaser & Strauss' 1967 term) that no further justification is required for their articulation.

It was almost universally maintained by interviewees and plainly evident from observation that the intervention increased faculty awareness at the level of issues raised by the G.I.L. This consciousness raising was evident on those issues which were specifically addressed in the feedback report. For example, faculty in general appeared far more conscious of issues such as leadership, goals, change, implementation, after feedback than on prior occasions, and were observed talking about them on many occasions. Obviously this tendency can be explained away as some form of halo effect, but the fact that this tendency does occur confirms the theoretical contention that feedback engenders energy. This also implies that the most opportune time to engage in follow through is immediately after feedback. This would capitalize on the interest generated by feedback and sustain the energy created.

In those institutions where the intervention enjoyed a high profile (i.e., those TTIs in the Feedback and Follow Through group), the feedback data tended to be used by various groups as a legitimizing device.

Aspects of the report were often taken out of context and used to legitimate causes or positions held by subgroups or powerful individuals within a faculty. Examples have already been cited of deans in two faculties who justified unilateral action on the basis of the data from the feedback report. In at least one of these instances the dean had already decided upon that course of action and was simply using aspects of the data to legitimate his position. In another instance a department within a medium sized faculty, who perceived themselves as being disadvantaged, interpreted the data (both that for their institution and for the aggregate sample) to justify their somewhat iconoclastic and nihilistic attitude towards the rest of the faculty. These examples are representative of incidents in other faculties. This finding is not surprising, it is a human tendency to justify our actions, particularly when we feel somewhat insecure. What is somewhat alarming though is that the data were used out of context and illegitimately to justify actions and positions that are inimical to the spirit and letter of feedback. It behooves the intervening agency to ensure at entry strict controls on the use of the data. This is particularly important at the beginning of the follow-through phase when as was noted in the previous paragraph energy is at its highest, and there is an enthusiasm for action, be it based on erroneous interpretation or not.

The third of the unanticipated outcomes is the differential impact of the intervention. Some groups were affected by the intervention more than others, and this occurred at both horizontal and vertical levels within institutions. Some departments consistently exhibited more

interest in and enthusiasm for the intervention than others, and the same was true for differing groups of faculty. Departments of Educational Administration and Educational Psychology were those who displayed the most interest in Follow Through. Departments of Educational Foundations on the other hand tended to be the most resistant to the intervention. In a similar way senior tenured professors showed least interest in the intervention as compared with their colleagues in administrative positions or those whose careers were not so advanced. This tendency which was consistent across the sample suggests that interventions of this type are more appropriate for some groups than others. This provides support for considering the utility of assessing the readiness of sub-groups for intervention prior to engaging in such an O.D. effort. This point is taken up again later in the chapter.

Finally, the feedback reports tended in a number of instances to confirm behaviours present in an institution. Individual TTIs were uniformly anxious to see how they compared with the norm, which was interpreted as the mean of the aggregate sample on each scale of the G.I.L. The implication was that the mean represented some sort of normative model of behaviour. If an institution approximated to this 'norm' or exceeded it, then there were signs of evident satisfaction. It was only if the results for individual institutions deviated negatively from the norm that the data was used for problem identification purposes. The exception to this was when a specific scale was peculiarly relevant to an institution. In these cases great emphasis was placed on the results irrespective of whether they conformed to the norm or not. This observation has two implications. The first is that despite the importance

of not having an explicit model for comparison (as compared to similar interventions in industrial organizations) the sample will inevitably derive such a model from the aggregate data. This of course provides a disincentive for change if the institution scores near or above the norm. It may well negatively affect climate and enthusiasm for change if it scores too far below the norm. Secondly, this observation argues that more utility is to be gained from feedback which reflects the actual situation within the TTI than from some model of functioning related to a certain theoretical or normative standard. The importance of responsive and reflexive feedback is taken up again later in the chapter.

This section has discussed four unanticipated outcomes of the intervention, viz. consciousness raising, its role as an agent of legitimation, its differential impact, and its confirmatory power. The next section uses these observations and those derived from the earlier discussion in the chapter to suggest certain guidelines for future interventions.

Guidelines for Future Interventions

The discussion and analysis to this point argues that survey feedback as an intervention for engendering a capacity for change in TTIs is no panacea. However, the results reported in the chapter do suggest that this type of intervention has a limited utility in facilitating change. It is now instructive to review the model in light of the previous discussion.

These comments relate to the operation of the specific model of survey feedback outlined in chapter four, and to the mode of intervention in general. Given this, the discussion will deal with each of these aspects in turn.

The Model

i) One conclusion is evident: unless each step of the process (as outlined in Figure 4:1) is conscientiously followed, then no appreciable effect will occur. The strikingly different results obtained from the Data Handback and Action Planning Group and the Data Feedback and Follow Through group supports this contention. A corollary is the finding that each stage in the process (i.e., Collection, Feedback and Follow Through) becomes increasingly more difficult to implement. The tendency should, therefore, be planned for when the intervention design is being drawn up.

ii) What was said in chapter four about the role of the internal facilitators and external consultants can only be reiterated here. The collaboration between internal facilitators and external consultants proved to be a positive feature of the design. Very little in terms of climate preparation, adequate data gathering and the development of ownership of the intervention would have occurred without the internal facilitators. Conversely, the technical capacity, resources and training provided by the consultants proved to be a necessary condition for the management of the project and the effectiveness of the internal facilitators.

iii) Training for internal facilitators was, as expected, an important feature in the design of the model. All the internal facilitators attested to the utility of these sessions, and they claimed that this feature of the model contributed towards whatever success the intervention enjoyed.

iv) The term positive climate refers to an atmosphere of acceptance and positive expectation towards the intervention on the part of the

receiving institution. The establishment of it was a major responsibility of the internal facilitator, and the experience of observation and interviews suggested that this is the single most important predictor of the success of an intervention. In institutions where a positive climate had been established and maintained, responses to data gathering were high, feedback was well attended and received, and there were high expectations for follow through. What was more difficult to achieve was the translation of the positive attitude into a sense of ownership. When it did occur, however, the intervention was very successful.

v) Greater emphasis should be placed on facilitating more rapid, structured, and intensive feedback. Nadler (1977, 1979) has outlined a number of approaches to establishing feedback groups; they may well enhance the effectiveness of feedback. In addition, it would be beneficial to be more direct in the way feedback is delivered. There was a tendency on the part of the internal facilitators and external consultants to let the data speak for itself. This appears to be a mistake. One needs, it seems, to outline the data in a forceful, critical, but nonjudgmental manner.

vi) This point refers to the content of feedback rather than the process of feedback in point (v) above. Institutions tend to use the aggregate data for normative comparison, and consequently place less emphasis on what the data says about their own situation. The feedback report, therefore, must mirror the reality of the institution. This serves not only to increase the sense of ownership towards the results, but also ensures that the snapshot taken is an accurate one.

Energy for follow through is created by information and dissonance. The more accurate is the portrayal of reality, the more charged and directed will be the response. By engendering ownership, and by giving a precise and accurate reflection of the actual situation, feedback will generate and direct energy towards real problems. This is a fundamental point: effective feedback provides motivation and energy for follow through.

vii) Follow through is the critical phase in any intervention strategy. It is also the most difficult to facilitate, for the very reasons that it is so necessary. A number of points surfacing from the data are relevant here. First, follow through should follow as closely upon feedback as possible. Second, the evidence from this study suggests that the consultants need to play a directive role. Third, work as far as possible in small groups. Finally, invest much energy in problem identification. Observations on a number of sites suggest that it is failure here that has the most deleterious effect on the outcome of the intervention. Follow through is a critical point in the process and needs careful planning in preparation and a direct and controlled hand in execution.

The Intervention

i) A survey feedback intervention is not a long-term approach. Its major utility is for "mid-course corrections" (Bowers & Franklin, 1972). This implies that it works best in specific situations rather than having a general application. Given the previous discussion on the limitations to the study and the major problems confronting many

TTIs of the sample, it becomes obvious that an intervention like this cannot ameliorate severe organizational problems. However, a number of interviewees suggested that the situation would not be as difficult in their institution if such a model had been previously employed, or if a concentrated attempt had been made to tackle problems using a problem-solving approach.

The intervention also appeared to work best in certain specific situations. The size of the institution, contact with the field, dean's support, goal consensus, and the institution's approach to change were all limiting factors. Put another way, on the basis of limited evidence survey data feedback appears to work best in smaller TTIs, which have good contact with the field, the support of the dean, a modicum of goal consensus, and a consensual approach to change. In this latter regard, it became increasingly obvious that "top-down" approaches to change in teacher education do not work, and in fact leave a negative legacy.

ii) Following on this last point that a survey feedback intervention has a specific rather than a general application, the data also suggests that certain subgroups are more amenable to change than others. During the final round of field visits, it became increasingly evident during interviews and by observation that the intervention had had a differential impact. Not only that but any positive affect in one group was diluted by negative or bland experiences in others. What is suggested by this finding is that in future interventions faculties only become the target group in particularly favourable circumstances.

That in general interventions should be restricted to subgroups who display some enthusiasm or predilection for such an effort, and that OD training be incorporated into the intervention design.

As Runkel and Schmuck (1976) maintain:

> The successes of OD consultation we believe, are due in large measure to our insistance upon bringing entire subsystems into consultation. . . . It is of utmost importance to give adequate time for introducing what OD is and how it works to a potential client organization. (p. 13)

iii) There is an obvious correlation with the previous guidelines and the notion of OD readiness which has recently surfaced in the literature. It is strongly recommended that the readiness of an institution or subsystem be assessed prior to intervention and that only those groups that display readiness be considered for an OD effort. In particular they should display

> A desire or value toward open communication and collaboration, administrative support and the absence of negative history of innovation. (Fullan, Miles & Taylor, 1980, p. 137)

Pfeiffer and Jones (1978) have recently published a useful article which analyzes the concept of OD readiness. This paper contains a simple instrument, the "OD readiness checklist" which can indicate the potential utility of an OD intervention in a client system. If this had been done with the sample of this study and those TTIs or departments not amenable at that time to intervention excluded from the study, then the success rate and efficacy of the intervention may have been much higher.

iv) The literature review on survey feedback in chapter three suggested that the more recent and more effective survey feedback efforts have contained both process and task elements. This particular series of interventions would have been far more effective if the OD elements had been combined with some concrete change about to occur in the institution, for example, program development. The combination of process and task elements is a far more powerful way of facilitating a change capacity. The need for change has already been established and the OD process provides a technology for implementing this change, as well as instituting a self-renewing capacity.

There are links here with the previous points about subgroups, readiness and the specificity of the intervention.

v) The fifth guideline is that the intervention be sustained over an extended period of time. A period of 18 months was previously mentioned as being the minimum for such an effort. Runkel and Schmuck (1976) suggest, on the basis of their work in schools, that 160 hours of training and OD work is required for a successful effort. Although they found that positive changes occurred in institutions receiving only 46 hours, they contend that any less time than that is associated with negative impact. It is because the intervention then opens up problems which cannot be resolved in such a short space of time. Other commentators have suggested up to three years of OD work is necessary before effective change is institutionalized. Whatever the exact time period may be, it is certainly longer than that enjoyed by the institutions of this sample. It may or may not account for the differential

and relatively minor impact of this particular intervention. The point is that an extended period of time is required for an effective intervention.

vi) The final guideline concerning the intervention is entry. Entry is a major theme in the OD literature and has had considerable impact on this particular study. There has to be a perceived need for the intervention on the part of the client. Also, on the experience of this study the decision for intervention should be made from as wide a base as possible among the clients. The dean's support is vital to the success of any intervention, but it is only a necessary, not a sufficient condition. There has to be a broad base of support amongst faculty as well, at least from the subsystem(s) participating in the intervention. It is also important at entry to have as full and wide an understanding as possible from the client group as to the uses the data will be put to, and a commitment to follow through.

This section of the chapter has sketched out guidelines for future survey feedback interventions. Certain guidelines were articulated which reflected on the functioning of the particular model used in the study, and on the intervention strategy in particular. In this latter regard it was suggested that because of the specific nature of the intervention it be linked to a task, that the readiness of the client be assessed and that in general the target group be a subsystem. In addition suggestions were made as to length of the intervention and the importance of wide based support at entry.

In conclusion, it can be fairly said on the basis of the evidence of this chapter that survey feedback can be effective as a strategy for enhancing the problem-solving capacity of TTIs. But this can only be said in a limited sense. Success can only be reasonably anticipated if the intervention occurs within the particular values of the parameters just discussed.

CHAPTER SEVEN

The Problem of Change in Teacher Education

An explanation is sought in this chapter as to why the survey feedback intervention was only partially successful. In only one third of the institutions was the model employed consistently, and both the dimensions associated with implementation and climate exhibited negative movement. Despite the limitations of the study, it is a moot point as to why this was the case. In the course of researching the impact of the intervention, data were also collected on the change process in Canadian teacher education. The data provided an explanation as to why TTIs have difficulty in managing change, and an analysis of these data forms the substance of the chapter.

In this chapter I shall trace the paradox of change and no change in Canadian teacher education to an inability to follow through on implementation within Canadian TTIs. This inability to follow through on implementation confirms the finding that this dimension is the most difficult to effect. I then seek explanations as to why this is the case. First, I analyze the barriers to change in TTIs, and then in a situational and ecological analysis expose tensions in the TTI's role which inhibit their functioning. Finally, I explain individual differences within these parameters by a description of the sagas, myths and images which tend to accultirate TTIs. I argue that the existence of these sagas also accounts for the negative movement on the dimension associated with climate.

The Implementation Process in Teacher Education

In the first chapter a paradox was presented which portrayed Canadian TTIs on the one hand as having made numerous structural changes during the past decade, but on the other hand as having changed little in practice. That this is the case is testimony to two themes which have been persistently argued throughout the study: that the structural change which occurred is a function of the power of external influences acting on the TTIs, and that little changed in practice is testimony to the inability of TTIs to react effectively to change, or their unwillingness to change.

Two examples will illustrate the point.

The first concerns program changes which occurred as a result of the introduction of the extended practicum, which involved most institutions of the sample. This innovation entailed fairly major program changes, and most of the changes attempted to make the programs relate theory more appropriately to practice. The response in one TTI took the form of the introduction of block programming for on-campus courses. The idea being that groups of professors would work with groups of students regularly, instead of individually teaching half-courses or leading specific study groups. By teaching and collaborating with colleagues and being associated with the same group of students over an extended period, the intent was to engender a personalized form of education and to more effectively bridge the theory-practice gap. The change was approved, block programs appeared on the timetable and

professors and students were assigned to particular groups. However, after a period of dissonance and a consequent hiatus, professors returned to teaching as they had done previously; i.e., individually to discrete groups, yet the block programs still appeared on the time-table and in the calendar (A/I6/R3, A/I3/4, A/F1/9).

The other example is drawn from the project's data derived from the GIL. One section of the GIL was concerned with "degree and extent of previous change in the faculty". There were four items, the first question was open-ended, and asked for a list of the major program changes occurring in the institution over the previous five years. If no changes had occurred, respondents were asked to turn to the next section. The remaining three questions were: To what extent have these program changes affected (2) the faculty as a whole? (3) your department or division? and (4) your classroom teaching situation? These questions were taken as an indicator of the effectiveness of implementation within the institution. If the responses to questions 2, 3 and 4 were consistent then the process of implementation was judged to be effective in the faculty; if there was discrepancy then the process was judged to be ineffective. The mean and standard deviation scores[14] from the aggregate and specific faculty responses to question 2, 3 and 4 are shown in Table 7:1. These results suggest that although program change has occurred, its influence is less on the classroom (the implementation interface) than on the department or the faculty. These

---

14. These results are taken from internal project reports dated September and October 1979. As the aggregate sample at this time only contained data from some eight institutions, the figures in Table 7:1 may differ from those in the final report (Fullan et al., forthcoming) which contains data from the full sample of 12 institutions.

examples support the contention that structural change is not necessarily reflected in practice. What this implies is a delinquency in the process of implementation.

Insert Table 7:1 about here

Implementation is a topic which is currently receiving much attention.[15] It is important to regard implementation as a process, and when one does, there is the realization that structural change is only one component in a highly complex and dynamic situation. There are commonly regarded as being five components to the implementation process, viz., structure, materials, role/behaviour change, knowledge utilization, and internalization (Fullan, 1979). Not only do structural alterations have to be made and materials produced to go alongside, but the changes have also to be understood, roles and behaviours need to complement the change, and finally an acceptance on the part of those involved in the change has to be present. What commonly occurs is that the first two components are met (structure and materials), sometimes also knowledge utilization, but it is increasingly rare to find the aspects of internalization and role/behaviour change catered for in implementation strategies. This is certainly the case in the examples cited above. A psychology professor summed the point up neatly when he said:

15. See for example Berman and McLaughlin, 1976; Fullan and Pomfret, 1977; Fullan, 1979.

Table 7:1

Aggregate faculty responses[1] from the GIL to Questions L2, L3, L4

Question: To what extent has the reported program change affected the:

	Faculty	Department	Classroom
$\bar{X}$	3.78	3.78	3.08
S.D.	1.22	1.22	1.42

1. On a five-point Likert scale ranging from very little (1) to a great deal (5).

> The hidden factor in much change is that change per se is not needed; in other words the reorganization in an administrative sense is not the problem. The problem is the individuals in the faculty or department. Maybe they are not uniformly of high quality, maybe a preponderance of them are not really good academicians, and this is a very serious problem. Sometimes attempts are made to use reorganization as a way of attempting to change the quality of individuals, and it doesn't work. (K/I/W03).

This section has supported the finding in the previous chapter that the implementation dimension is difficult to affect. It has also highlighted the paradox of change and no change, which is resolved when change is conceived of as a multidimensional process of institutionalization.

The data suggests that there are a number of sets of reasons as to why change is difficult to institutionalize in teacher education,--there are certain barriers or impediments to change, there are certain contemporary influences which may or may not continue to exist, and because of these two groups of phenomena certain cultural myths develop within institutions which serve to define their collective behaviour. These three complex and interrelated issues account for the inability of contemporary teacher education to be more effective at carrying through change. These issues now become the substance of the following three sections.

Barriers to Change

In a preliminary analysis of the data (Hopkins, 1980 b) an assessment of the effectiveness of the survey data feedback intervention led to a consideration of the barriers to change in teacher education. In

the paper a long list of barriers was condensed into six major categories, as seen in Figure 7:1.

Insert Figure 7:1 about here

The conceptual scheme fits well into the typology suggested by the literature on change in higher education, with barriers existing at the systemic, organizational and individual levels (Baldridge, 1971; Lindquist, 1974). As the research progressed, it became obvious that a number of the barriers to change were perceived rather than actual, or if not perceived, were a reality that had little empirical support. This necessitated an extension to the schema to include perceived barriers, which is reflected in the figure.

Many of the barriers listed in Figure 7:1 correspond to those which one would have expected to find from a reading of the literature on educational organizations. Others have been discussed elsewhere in this study. Only those barriers which have received little attention in the literature or have not been discussed in the study are analyzed below.[16]

Autonomous pluralism. This barrier refers to the norm that faculty members pursue their own interests by themselves without a great deal of consideration for the good of the institution as a whole. That this is an accepted norm legitimates and gives autonomy to individuals who adopt this stance. This tendency obviously militates against change; because of the resulting fragmentation within the faculty there is little

16. These are the barriers marked with an asterisk in Figure 7:1.

	Real Barriers	Perceived Barriers
Systemic	- Economic factors	- Inertia
	- Political pressure (government)	- Future uncertainty
	- Vulnerability (environmental constraints)	
	- Central university administration	- Bureaucratic myth
	- Tradition	
Organizational	- Lack of clear mission (goal variability)	
	- Incongruent reward system	- Top down approach to change
	- Poor communication	
	- Absence of linking structures (low interdependence)	
	*- Autonomous pluralism	- Teachers' college legacy
	- Complexity of decision-making process	
	- Inadequate implementation	- Recent history of change
	*- Discontinuity of personnel (academic year, sabbaticals, retirement)	
	*- Inertia	
Individual	*- Poor leadership	
	- Tenure system	
	- Plurality of Roles	- Emotional resistance to change
	*- Socialization into a discipline	*- Too busy
	- Incompetence	*- Tendency to externalize
	- Innovative fatigue	- Innovative fatigue

*discussed in text.

Figure 7:1. Barriers to change in teacher education (Hopkins, 1980b).

knowledge about other people's attitudes and stances on various issues. This makes it difficult to build a consensus for change. The following quotations taken from the field notes illustrate this barrier well.

> _____ talks about being there for ten years and not knowing the people who are innovative or who would support change. He also feels that it's a very closed, uncommunicative group; there is physical separation as well as organizational, which means that apart from a few colleagues he doesn't talk to 90 or 100 faculty, and this . . . he sees as a big barrier to change. (A/F/4)

This quotation puts the same point in a more poignant way:

> I think that professors must be the most insecure people in the world, and you give up, e.g., nobody is happy for you when you achieve something. Very little caring about what you are really doing . . . it is very little sharing, very little knowing about what is going on. (K/I/H2)

Discontinuity of personnel. This barrier is a reflection of the pluralism noted above. The academic year is only fully functioning for some seven months of the year, and even during that time the ranks are depleted by sabbaticals. This means that it is often difficult for an individual to see a change effort through the time frame normally required for successful implementation. One interviewee highlighted the problem this way:

> Policies get made sometimes, but they don't often get implemented, and it's partly again because of the fact that our administrators, the people who implement the policies, the coordinators of various programs keep changing. What one coordinator does the next coordinator does not necessarily find out about or reinterprets the policy in a way and in some cases disregards it. (F/I/DW8)

And another:

> On a theoretical level it's a great model, but when it comes time to get your staff together you can't do it in the summer because people are all over the place teaching summer schools or are on vacation. When classes start everybody's right into their own work. (E/I/MU1)

In seven of the 12 institutions for example, there had to be changes in the internal facilitators because of changes in assignments, sabbaticals or similar interruptions in their professional lives. In addition five institutions changed their deans during the course of the project. That changes of this magnitude occurred within such small groups of individuals in a limited sample reflects the lack of role permanence in TTIs.

Leadership. The quality of leadership in faculties is often pointed to as a barrier to change, particularly by those not in administrative positions. Half of the institutions according to those interviewed, pointed to ineffective or noncollaborative leadership as a major barrier to change. For example:

> The group felt that their plight was not being aided by the present administration within the faculty. They perceived the college administrators as being noncollaborative and conservative, and these people by their very nature affected the decision-making procedure within the college. (A/F3/4)

Another comment:

> They simply run the place without bothering with anybody very much. (D/I/G7/8)

The result of weak leadership is seen in this quotation:

> Without some clear leadership we end up taking on all sorts of things, anything that comes along, without having any rational plan as to whether or not this isn't something we should/not be getting into. There's a certain vacuum. (L/I/S5)

A final comment which reflects a substantial minority of opinion in at least three institutions:

> Of course we had a terribly bad administration for a period of time which has been very destructive, and will take a long time to rebuild. (K/I/We2)

Socialization into a discipline. There is a strong theoretical and empirical argument which maintains that in higher education allegiance is vertical, i.e., to one's discipline, rather than horizontal, i.e., to the faculty (Bernstein, 1971; Evans, 1968). The academic socialization process revolves around disciplines rather than institutions, and provides a barrier to concerted action. The phenomenon was well displayed in the sample. One respondent maintained that:

> Allegiance was to one's subject group, one's discipline group and to other groups outside the faculty rather than across the institution. You consider yourself a psychologist rather than a member of the _____ faculty, and this is a big barrier to change. (J/1/2)

Another responded in this way:

> Q: Are there any systemic characteristics which inhibit change?
>
> A: If you do bring new people in they are going to sit in their offices and they don't worry about teacher education, they worry about their discipline, so they concentrate on that.
>
> Q: So they are socialized more into their discipline than they are into the institution?
>
> A: Especially in teacher education, which becomes a kind of side line. (K/I/H3)

A final quotation:

> Most faculty members are specialists in certain areas and perceive their task as having to educate and train students just in that area, and they're not seriously interested in how that fits into the bigger picture. So therefore if the proposed change appears to require that they broaden their horizons then there's a certain amount of resistance. (K/I/Wa5)

Too busy. In conversation with individual faculty across the country, one common characteristic became very evident. Virtually everyone talked to or interviewed considered themselves as being busy. Whether this was a perceived or actual situation varied from individual to individual, but perceived or not, the norm tended to reinforce itself. If you consider yourself busy or preoccupied with the day-to-day press of the work place, then you will have little time to spend on planning, initiating or implementing change. These quotations from interviews capture the flavour of the "too busy norm", be it actual or perceived.

> We're encouraged to take part in committees, in research (of a small scale) but there seems too little time. (D/1/D2)

> The plan was just beautiful. The fact is that it is unrealistic as hell, because we just don't have time to do that. Stupidly we don't have the time, because that's the kind of thing we should be doing. (E/1/Mu3)

> One factor is time, it's become a status symbol to be busy, but it doesn't have to be productive. That norm has a great deal to do with inhibiting change, because it means that people no longer sit back and ask any fundamental questions. So long as people are busy. We've been kept busy here, and you set up committees mostly to keep people busy so that they won't rock the boat. I see that norm as one of the main inhibitors. (A/I1/Sa7)

Tendency to externalize. The tendency to externalize--to blame others--is contributing in some way to the inertia which is prevalent in teacher education. During interviews many faculty explained away most convincingly the need for individual change despite almost overwhelming evidence to the contrary. The following quotation is an extract from field notes taken during a two-day retreat where an ad hoc

group of faculty from one institution gathered to analyze in depth the feedback report, and plan for follow through.

> At this stage (Thursday mid-morning) there was the feeling, certainly on the part of the internal facilitators and myself, that the discussion was at a too high level of abstraction. _____ articulated this concern by talking about the danger of "externalization", the tendency of not taking ownership of particular problems and transferring the root cause elsewhere. For example, when faced with a specific problem, of reacting by saying one is powerless or trapped, or the structure is too severe, etc. The faculty is balanced between the two opposite poles of freedom and constraint, and at the present time the College is heavily weighted on the constraint end. (A/F3/4)

A similar point was made in an interview:

> I really do think we externalize in that we think that what happens to us is outside of our control and the system will come down on us. I don't really think that is true. Not nearly to the extent that many people feel it's true. (A/I3/5)

Although not many of those interviewed openly professed externalization as a barrier to change, responses of this type were recorded in most institutions.

Inertia. This barrier refers to a generalized resistance to change evidenced in the institutions of the sample. It reflects an acceptance of the status quo because that condition offers the most comfortable life style, and the least dissonance. This thought was put starkly by one interviewee:

> Most people have etched out for themselves a fairly comfortable role in the college which allows them to complain and bitch about the state of affairs but in reality is quite comfortable and they don't really want to have things changed because it may mean that they may lose the comfortable status quo type of niche which they have established for themselves. (A/I2/B4)

One dean saw this inertia as the most important barrier to change:

> A real (barrier to change) is the general feeling by many individuals that once you take on something and you find you're able to do it you don't want to change that. Nobody likes to move from comfort to discomfort. (A/I2/B4)

Another associate dean put it this way:

> The faculty is comfortable in the things they have been doing for years—inertia. The whole university has a kind of inertia which has a depressing effect on change. (L/I/K8)

Inertia appears to be a very prevalent barrier to change and reference was made to it by interviewees in each institution during interviews or informal discussion.

Although the list generated in the previous paper (see Figure 7:1) was much longer, this discussion of barriers to change highlights those barriers which have not received much attention elsewhere. These barriers to change, autonomous pluralism, discontinuity of personnel, poor leadership, socialization into a discipline, the norm of busyness, the tendency to externalize and inertia, are with the possible exception of the latter three not exclusive to TTIs. Although presenting a formidable catalogue of inhibitions to change and its institutionalization, they would characterize many other departments and institutions of higher education. The argument is that TTIs have a specific pathology when it comes to the implementation of change. If these barriers reflect the situation in other organizations as well, it is important that the distinctive features of the contemporary situation in TTIs are articulated and analyzed. This is done in the following section.

The Ecology of Contemporary Teacher Education

In chapter two it was suggested that the problem of teacher education was that it has not satisfactorily come to terms with its new role. That although the move to the university has been completed in a physical or structural sense, there are still a number of unresolved tensions which hamper the functioning of the TTI. These tensions revolve around three major and interrelated issues, university norms, the role crisis of TTIs, and their vulnerability to the environment.

University Norms

When the teachers' colleges moved onto the campus they became subject to the norms of the university. In particular, they became subject to the university's tenure and promotions criteria, which traditionally place almost exclusive emphasis on research and publication. It is well established that education professors are in general not prolific publishers (Guba & Clark, 1978), and this immediately puts them at a disadvantage when compared with their colleagues in other departments and faculties. Similarly the major funding agencies in Canada (e.g., SS & HRC) tend not to support the type of research that large numbers of education professors could engage in. They tend to favour "pure" research, rather than the type of research described in this study, and even less developmental or applied curriculum research.

The lack of research being carried out in faculties of education and the dilletantism associated with what is done, is well illustrated

in these quotations from interview transcripts. It should be noted that these quotations reflect the sample as a whole, as similar comments were made in every institution.

> But the research thing bothers me most. I think a university to be anything unique should generate knowledge. . . . But what the faculty does not want is to make provision for people to carry out research. When you carry out research here, I think it's in spite of not because of the faculty. (G/I/F4)

Our big emphasis here is not on doing research, but on teaching (E/I/5).

> An area where I need to grow into more is writing--it's difficult here to find the time to do much reading and writing and research. (L/I/S1)

This lack of emphasis on research has had two major outcomes in the institutions surveyed. First, because the teachers' college tended not to match the academic faculties in terms of the traditional criteria for promotion and tenures, they are regarded as the poor relation on campus, tolerated because they are family but still not quite acceptable.

This is evidenced in the following quotations, over one-half of the sample (7 out of 12) admitted to being in a similar position.

> Q: What do you think the faculty doesn't do well?
>
> A: Image building—I don't think we enjoy a very positive regard on campus. (K/I/W2)
>
> There's a feeling that (the Faculty of) education is a waste of time, there's nothing in it. There is a feeling that you are second class. (K/I/H3)
>
> Q: What do you do worst in?
>
> A: Bitch, right now selling the importance of this faculty to the entire university. Individual faculty members are well regarded but not the faculty as a whole. (D/I/D1)

Secondly, the existence of these norms has encouraged many education professors to forsake their traditional roles and tasks, and to concentrate on activities such as pure research, which are somewhat tangential to the main purpose of teacher preparation.

Role Crisis

The role crisis in TTIs is fed by three influences, viz., plurality of roles, quasi-professionalism and the teachers' college legacy.

The no-win situation created by the university norms is compounded by the plurality of roles that education professors have to fill; mention has already been made of their teaching, research, counselling, supervision and administrative load. The great majority of faculty interviewed or talked to during the course of this study complained not only of the workload, but also of the diversity of roles they had to fulfil. They also maintained that this diversity inhibited the pursuit of excellence in any one field of endeavour. One dean put the dilemma this way:

> We have certain commitments we have to meet; there are students who have to be taught, we have a program that must be offered and it's largely prescribed. One cannot do other things without having met these requirements. (A/I4/9)

An internal facilitator put the same point somewhat more emotionally:

> I really think that people in a faculty of education ought to have some private time when they are maybe goofing off, thinking productively, or reviewing the situation, but when they're not expected to actually be physically involved in doing anything. In the Faculty of Arts they teach 2-3 classes per semester on average. Here you're expected to teach at least 5, and if you don't resist

> they'll lay 6, possibly 7 on you. I think if you teach 6 classes you're dangerously close to the limit, you just don't have any time to yourself. I don't think that everybody should have all the time in the world to do research because some people wouldn't do it, even if they had the time. But I think that those who do have an interest in that direction and do want to spend time certainly should be given the time to do it. (L/I/He8)

And finally an acting dean adds a touch of realism:

> The fact remains that if you're teaching three hours a day and you're working three hours a day counselling students--I have students in here three hours a day, every single day, either on an informal basis or students taking independent reading courses. But if you have six hours every day consumed that way and you thought you also should be doing a certain amount of reading to keep up with what's going on, and you're maybe teaching an extension course to try to get this in-service thing off the ground, and then someone says to you—listen, we've got this really neat study that we're involved in—your reaction is likely to be--hey, that's a super study and I'd really like to get heavily involved in it, but you tell me when I'm going to do it—because I also have a wife and two kinds at home that are screaming for a little more time. (F/I/Mu7)

Another compounding factor is the "quasi-professionalism" (to use Sieber's 1975 term) of most education faculties. Although there are no hard data to support the contention, the majority of faculty in TTIs are still teachers' college staff. Although it does not necessarily call their competence into question, what it means in practice is that the traditionally high entry standards required of university professors are not always reflected in education faculties. This is unlikely to be remedied in the near future, because the majority of these people were granted tenure when the college moved to the university. As one interviewee said:

> The age of faculty members explains a lot about this faculty. We have a lot of senior level professors who arrived on the scene when the institution was being built up, came in on the middle of the associate professor rank by virtue of their own previous school experiences and the looseness of the system in the mid-60s and stayed. . . . We'll see major changes around here, starting in about five years time, as a function of refinement and replacement of staff members but not before. (K/I/H04)

And another commented:

> I see the old guard that we were forced to accept from the teachers' college. . . . These people do not have strong qualifications--mostly no graduate work in education at all. They have tunnel vision . . . They hold us back. (A/I/E-B2)

Besides inheriting the staff of the teachers' college, the TTIs also took the teachers' college legacy with them to the university. This point has been alluded to on several occasions, and it is a powerful influence in Canadian teacher education. The national character of the phenomenon was well caught by one interviewee:

> We're all in the same bind--survival. But typical of Canada, as opposed to the U. S. A., we're haunted by the normal school approach rather than the academic research orientation of the colleges in the States. (D/I/D3)

The following extract from field notes illustrates how powerful the legacy can be in the case of individual institutions:

> Up until 1969 the dean was a joint appointment of the Ministry of Education and the University. This piece of information tells one a great deal about the orientation of the faculty. People I talked to felt that the administrators saw the faculty very much in terms of a school and ran the faculty much as a vice-principal would run a large school. (D/F3/I)

A further quotation illustrates the point:

> If the Ministry doesn't like it then we don't set it up--this place used to be an arm of the Ministry in everything but name until ten years ago. (D/I/G6)

The compounding of these factors (viz., the plurality of roles in teacher education, its quasi-professional character, and the teachers' college legacy), engenders a sense of anomie and rootlessness in TTIs. There are a large number of tensions in their role which are keenly felt, they are of the university, yet not part of it, and this dissonance appears to inversely affect their capacity to carve out a unique role for themselves.

The difficulty in carving out a unique role for the institution is well exemplified in two contrasting institutions of the sample. In the one institution great emphasis has been placed, since the reforms of the early seventies, on the practical nature of their teacher education program. A vocal, energetic and persuasive minority of faculty have prosecuted to the extent of their considerable ability and political influence field based teacher education. Because this approach lies outside the norms of traditional university departments, this group has conflicted with the central university administration. Not in a formal sense, but their advocacy of a field-based role for themselves has led to innumerable frustrations, particularly in terms of funding, promotions and tenure, and the general kudos of the faculty on campus. So much so that a number of the group, particularly those in senior administrative positions in the faculty, regret the move of the college to the campus. They desire a return to their previous situation where

they could exercise their professional autonomy without recourse to the criteria imposed upon them by a central university administration.

The associate dean of this faculty expressed the frustration during an interview this way:

> Teacher education is housed in the university setting which in many ways is just dysfunctional for teacher education. . . . We're locked into a university system which has a reward system which has in the past worked relatively well . . . but a professional college doesn't really fall into that category. Practising professionals, or when a person becomes a practising professional he requires not only a cognitive knowledge but actual skill. . . . Competence should in fact be demonstrated . . . It's dysfunctional in the set of rules that we set up—I mentioned the reward system; traditionally university is publish or perish kind of thing. We need a reward system that recognizes the importance of being able to transfer theory into practice, or integrate theory with practice, which means if we really want our practica to mean something . . . we want to have something more than that happening that has to be done in a developmental, sequential, systematic fashion, and that means the reward system must recognize excellence in practica, excellence in interpreting theory into practise. (L/I/La5)

The other example is of a department of education in an old established university, which consciously regards education as an academic discipline rather than as a profession. They purposefully teach about education, to the expense of preparing student teachers in methods and teaching skills. Field experiences are minimal and on occasions even these opportunities are used to illustrate theories about education rather than to demonstrate and refine teaching skills. In this way the department is seen to be conforming to the norms of the university by pursuing a traditional academic role and a number of faculty have international academic reputations. But because they

do this, the department has lost favour with the local school board, the ministry of education and the teachers' federation. Even worse, their enrolment has drastically reduced, which now seriously affects their position within the university.

The dean put the point quite succinctly:

> We haven't been able to provide an adequate amount of suitable teaching practice. It's perceived that we're not interested. (F/I/H1)

The internal facilitator expanded on the situation in an interview which included this series of quotations:

> In this department a good number of people . . . feel strongly that the school board, the school system as it exists now is a hopeless case, is a dreadful thing, is pernicious, repressive and should be done away with as it needs radical change. And these people . . . see their role to criticize the school board as much as possible and to send out students into the schools to complete the process. (F/I/DW8)

> _____ has a bad name in some quarters. In the school system it is perceived by some with intellectual hostility, (also) there are people who are outraged by professors who have gone into the schools and done what they would call irresponsible things (like) criticizing an acting teacher in front of his class for his teaching methods. (F/I/DW10)

> The (teachers') union? I don't think we have very much contact with it at all. They wanted some information and they went to the ministry of education for help—they didn't come to _____. (F/I/DW11)

These two cameos represent the extremes of the sample, and well illustrate the double bind in which TTIs now find themselves. There is one other characteristic response to this predicament found within the sample, and it takes two forms. The most common is to separate the teacher education function from the study of education as a discipline.

In some faculties persons (usually practising teachers) are brought in on a temporary basis to supervise and instruct trainee teachers, which allows faculty to teach theory courses and supervise graduate students. In the other situation some faculty, usually the teachers' college personnel, are permanently assigned supervisory tasks, whilst others, the more "academic" faculty, teach solely theory courses. As one interviewee said:

> The old guard from the Teachers' College have not been expected to do research, writing, work with graduate students, counselling or direct projects. (A/I/Bi2)

In each of these three instances, which are characterizations which adequately reflect the sample, there is a dichotomy between the theoretical and practical aspects of teacher education. In elaborating on this theme elsewhere (Hopkins, 1980 a), I suggested that the lack of integration between theory and practice was the most critical problem facing Canadian teacher education. This analysis suggests that it occurs as the result of entrenched structural factors. The contention is supported by evidence from the project analysis of the GIL results, which maintains, on the basis of quantitative and qualitative responses, that the lack of integration of theory and practice is the single most pressing problem facing Canadian teacher educators today. Virtually every interviewee mentioned the problem and the difficulty of integrating theory and practice. The following quotation from an associate professor is very typical of the majority of comments on this topic taken across 55 interviews:

> I think the integration of theory and practice is very desirable, but I don't think it is very effective. In the program there is a definite relationship between what is taught and what students are expected to do as student teachers. The real commitment to good integration of theory and practice is much lower than it should be. (K/I/H62)

Vulnerability of Contemporary Teacher Education

It could be argued that this situation arises because the move to the university was a major innovation, that it takes time to institutionalize and that given experience the situation will right itself. Be this as it may, the luxury of time is not available. A consistent theme of the study has been the vulnerability of teacher education. And it was evident from the interviews and observations that this vulnerability was keenly felt. The reasons behind this--declining enrolments, increased accountability, budgetary restraints, acceleration in the pace of social change—have been discussed elsewhere. The impact of this vulnerability has served to heighten the feeling of anomie experienced by many TTIs in the sample. Declining enrolments have occasioned reduction in staffing and heavier workloads, and in Eastern Canada some TTIs have even been closed. In all institutions expansion is a thing of the past and a static professional population now the norm.

Of the seven institutions where more than one interview was carried out (i.e., 53 out of 55 interviews) the majority of interviewees specifically talked about the political, economic, and social vulnerability of their institution. They also expressed concern about what this

meant for their future and the future of teacher education in general. All saw little mobility in the job market, most saw increasingly little room for flexibility in their roles.

Not only has there been contraction, but increased pressure for change and the inability of most TTIs to cope with demands have produced a malaise and a condition of innovative fatigue. It is not an exaggeration to describe many of the institutions of the sample as being "tenured in and changed out." Referring to his own faculty one dean commented:

> We've been engaged in substantial program change for three and a half years, we still have another year or so to complete the overall revision of our programs and I think that people are 1) tired and 2) extremely busy—there is a feeling of, "Oh my God . . . I've got too much on my plate now, I'm involved in all these program revision committees and I just can't take any more of this." (A/I4/2)

This section has analyzed a number of factors which are defining the present character of Canadian teacher education. The move to the university campus, the role crisis in TTIs and their vulnerability to their environment, has created a situation where there is a general ambivalence and uncertainty as to their prime function. This uncertainty in its turn has led to a generalized reduction in effectiveness of many of the TTIs surveyed in this study. I summarized this hiatus in the following field note:

> This is a very difficult time for teacher education. All the six institutions that I have been at in the last two weeks, all appear to be going through difficult periods, difficult times. _____ still has this morale problem in the wake of the _____ Report, _____ has the political problem of appointing a new dean which has caused a vacuum in the institution during the last two years. It also has a problem of the two camps divided

> between the elementary and the secondary program. _____ is in the midst of enormous program change which has not quite settled down in the faculty. There also appears to be a great degree of suspicion in _____ which I can only account for that in terms of an historical perspective. The University of _____ is faced with retrenchment, and this retrenchment is so pervasive that it has become institutionalized. Retrenchment is now a norm and is acceptable at the _____; it's a very depressing institution. At _____ the department there is facing severe enrolment problems, it is facing a lack of nerve in face of criticism from accounts of its program. The university itself, the school districts, the teachers' union are critical of the approach which _____ is taking and there is a great deal of insecurity in the department as to its future, and they seem to be paralyzed into ineffectiveness by the situation they find themselves in. _____ have reacted a bit more positively, but they have seen the writing on the wall and have devoted all of their energy into in-service programs. Even though this is a positive response this makes life for them abnormal because of the investiture of time they place in developing this aspect of their program. (F/23.5.80)

However, despite this assessment, some institutions were functioning admirably, others, as have been seen, less so. What accounts for these individual differences?, and what is their character?--this is the topic of the next section.

Images, Myths, and Sagas

The conceptualization of the barriers to change, and the defining features of contemporary Canadian teacher education are well grounded in the data. But in the light of the field experience, they do not explain the individual variability which exists in the sample. Clark (1975) outlines the concept of saga as being a cultural artefact that defines the character of an institution. His definition of a saga

includes the lengthy historical development which one associates with certain Ivy League institutions and Oxbridge, and this tends to limit the utility of the concept in this situation. But when it is considered alongside the notion of images of change (Runkel et al., 1978, Runkel, 1980) there is the possibility of a powerful concept that goes a long way towards explaining the analytical similarity and practical differences existing in the sample.

This thought needs tracing back a little. The research and the discussion so far supports the notion that change in teacher education occurs as the result of external pressure. It also suggests that the change process in teacher education is reactive, and that this situation is exacerbated because of the vulnerability of the institution. The contemporary situation of TTIs and the number of significant others with which they have to contend has already been enumerated. The result has been a continuing pressure for change activity on TTIs over the last 10 to 15 years.

Some change has been resisted, as has just been described. The resistance, coupled with the enervating experience of change that has occurred in most institutions, results in a cumulative perceived resistance moderated through the unique character of each institution. The perceived cumulative resistance manifests itself in a quasi-institutional saga which creates a set of meanings owned by many faculty. The saga comprises the single most powerful and sustaining barrier against change in TTIs. It is the only way that the gap between the technical capacity of an institution (despite all the real barriers that have been articulated)

to change and its emotional capacity to change which, of course, is the determining factor, can be satisfactorily explained.

The argument is that all institutions possess such a saga, a collection of perceptions which create a reality which has grown out of a dynamic existing between the pressure for and resistance against change that is so characteristic of TTIs. Obviously the power of these sagas to inhibit change varies from institution to institution, as a result of the institution's own unique character and its interaction with the environment. In creating a taxonomy of these sagas within the sample it was found that they fell into five fairly discrete categories. A summary of these categories and their frequency in the sample, is found in Figure 7:2.

Insert Figure 7:2 about here

The state of Institutional Retrenchment is characterized as one where there has been continued and prolonged pressure for change which has (for whatever reason) been largely resisted. The promise of change followed by a lack of implementation has resulted in a disillusionment so pervasive that it is no longer a matter for contention. The result is an institution where faculty are rarely concerned about change, are content to fulfil their normal duties and have little contact with the rest of the faculty outside of their immediate peers. So entrenched is this saga that it is difficult to see how the institutions concerned can turn the situation around. This is especially true as they are very large, well established institutions, with a preponderance of

Description of Saga	# and % Involved N = 8	
Institutional retrenchment	2	25%
Paralyzed into inaction	2	25%
Innovative fatigue and suspicion	1	12%
Development inhibited by myth	2	25%
Relatively free to change	1	12%

This analysis does not include the complete sample, but only those institutions where final site visits were accomplished, i.e., Data Feedback and Follow Through, and Data Handback and Action Planning groups only.

Figure 7:2. Institutional sagas.

tenured faculty. I regard this particular saga as the most entrenched and least open to change of all those presented here.

Some flavour of what this saga entails can be gauged from these following quotations from interviews with faculty in the institutions concerned:

> My own feeling is that we are still sitting back 10-15 years behind the times. (D/I/G1)

> I detect this feeling throughout the place that what we have now is really good. Let's hang in there and not change anything. We've been like this for 50 years or however long the place has been running and let's not mess around with it. (D/I/G4)

> There are people who would be interested in change because they are perhaps disgruntled. Some of them are disgruntled because they are frustrated, they haven't been able to do things. I couldn't put a finger on how many there are in this place—it would be difficult to stage a coup, because you don't know who is for you or who's against you. It's a measure of this place that after ten years I couldn't tell you who's a radical, who is in favour of changes. (D/I/G8)

> It was very difficult to do any change in the regular program, not just because things got set in their ways that if you wanted to change it had an impact on others who weren't able to change because of their set time-tables or they weren't available . . . there was no control over the variables. (H/I/W6)

Paralyzed into inaction describes a situation where a faculty is simply overwhelmed by the external forces acting upon it and feel powerless to do anything in reply. As a result, they do nothing until action is forced upon them. The difference between this saga and institutional retrenchment is that in the latter the immunity to change is unconscious, while the former presents a conscious threat which induces a sense of fatalism and resignation.

It is a potentially more serious situation, for in the instance of institutional retrenchment programs continue, students graduate, and funding continues much as it always has. But the institutions who are "paralyzed into inaction", are in a state of crisis. They have been subject to extreme criticism by external agencies, and as a result have lost their credibility within and outside the university. This tends to disrupt normal operation, and forces the administration of the faculty into extreme action, which is usually regarded negatively by the faculty at large. However, given the volatility of the situation, this particular predicament, although more serious is probably easier to remedy than that of institutional retrenchment.

A flavour of the situation of TTIs caught in this saga is well captured in the following extracts from interviews with faculty belonging to these institutions.

> The constant feedback, that we're all disturbed, we don't like each other, we don't like the administration—I don't think that is good. People don't like that kind of evidence . . . it becomes so negative in a large faculty such as ours that people are losing morale. . . . It becomes too much of a downward spiral. It is necessary at times to have a look at what's happening so you don't get into the type of spiral we got into. Nobody really knows when we started this, what happened but it does affect morale. I think we've stopped the present spiral but we have a long way to go up again. (K/I/W02)

> Since the questionnaire a lot of people have put it out of their minds because of other pressing problems in the department--we're going through a time of uncertainty here, we're losing professors, fighting to keep some, fighting to get more, our chairmanship is in the process of changing over and we don't know who the chairman's going to be, the President of the university is changing so we don't know who we'll be dealing with. We don't

> know how they're going to regard us; the dean of Arts and Science is changing, so we don't know how the new Dean is going to deal with the Education department . . . Our enrolment decline is 40% in the undergraduate program this year, down from 100 students in the previous year to 60, and that has been a topic of concern among faculty members. . . . There's the uncertainty of the new chairman, the uncertainty of where we're going to be, what's going to happen to our B. A. program. (F/I/DW2)

Illustrative of the perceived need for strong administrative action in these circumstances and its likelihood of success are my notes taken after a conversation with one of the deans concerned.

> He feels that rational consensual change cannot occur in the faculty because of the antipathy, and that one has to be more authoritarian or back off. Because of the negativism, because of the problems, one has to become more authoritarian and prosecute a point of view with more vigour than usual. (K/I/L2)

Innovative fatigue and suspicion describes a state which may well precede the one just described. The dialogue with change has been long, arduous and not consistently successful. Much of the impetus to change has come from sources other than the grassroots and as a result has engendered a sense of weary cynicism which faculty now associate with change efforts. This attitude is most probably the most destructive and negative of the five, for a faculty in the grip of this saga will treat even rational and well-meaning attempts at change with a suspicion and hostility that they do not warrant. The difference between this saga and the other two, is that a) it is a conscious situation, faculties realize that they are weary and suspicious and b) it is not the result of external criticism. It

appears to be the result of a history of poor change management within the faculty. As with the previous saga, the pathology is not so extensive that it could not be changed by concerted action.

What this saga means in practice is that often well-meaning change efforts meet with a surprisingly virulent negative reaction. To an outsider not cognizant of the prehistory, such extreme opposition to well-intentioned reform seems surprising. Examples of failures of implementation in institutions caught in this saga have been scattered throughout the study.

The following verbatim quotation from a conversation with an internal facilitator captures the essence of this saga.

> We've had a history of many, many committees that have been asked to study a particular subject and then the reports have never been looked at—it's always been a technique of handling people who wanted to bring about change, to say, "That's a neat idea and we'll set up a committee, and we'll have you report on that." That thing tended to produce a climate of mistrust. . . . That leaves people saying, "Hey, what's the real story?" So I think the result of all of that and what has come out in terms of our efforts to bring about change, and people finding their their efforts at program development really were shot down--finding out that somebody that they thought was listening really wasn't--these people feel alienated and powerless. I think we have quite a climate of that in the College. (A/I/Sa5)

Even the dean of the faculty said:

> Had the study come up with findings that said things like, "Hey, this is the best College of Education in Canada," I'm not even sure that would have had a good impact, because people wouldn't have believed it. I think this College, this faculty had a basic inferiority complex for various reasons, and it's something I've been fighting since I've come here, and may have contributed to it rather than help resolve it. (A/I4/13)

Institutions whose development is slowed by myth present a mild form of inhibition. Here the recent history of the faculty has had a relatively benign influence, which although partially anachronistic in the contemporary situation, still guides its present direction. This occurs in the same way that Argyris and Schon's (1978) single-loop learning[17] guides the development of corporate institutions. The benign influence of the recent past creates a myth of a glory which still guides the traditions and mores of the faculty. It is difficult to persuade faculty to relinquish a comfortable and comforting status quo for an uncertain future.

Institutions living within this saga are usually regarded as successful; particularly if they are either large or small, not moderate in size. If large, the saga provides a buffer which protects the institution from external criticism, and allows individual departments to pursue their own policies even if they are not associated with the saga. The fact that the saga is in place protects the institution. In small faculties the myth is pervasive, and as most faculty adhere to it, it normally exercises a benign influence. However, in medium-sized institutions the saga can have a negative influence. This is because in moderately sized institutions departments may have differing interpretations of the saga, which although not powerful enough to unite the faculty are pervasive enough to cause dissonance.

In general this saga gives faculty identity and self confidence, which enables them to react effectively to external pressure. An

---

17. Very few institutions display the characteristics of Double loop-learning, which could be equated to a well developed problem-solving capacity.

internal facilitator described it this way:

> Change comes from pressures from various sources in response to perceived needs. Changes come from perceptions on the part of the public that things need changing, that public pressure and sometimes pressure of a completely different variety and source, from the school boards, school trustees, teachers' unions, and students, for change. . . . I think that we have responded pretty well and reasonably intelligently to demands on the part of the school boards, trustees, public, and supposedly the students, to requests that we develop more in-the-field competence in our training program, rather than simply making sure the person has been exposed to x, y, z content and pronouncing him a teacher. (L/I/He6)

An institution which is relatively free to change, is one which is uninhibited by myth but is still constrained by the organizational barriers and ecological constraints articulated above. They are typically small, well integrated faculties, with good relations with the field. They are aware of their limitations and are businesslike in their approach to their everyday tasks and possible future directions. This down-to-earth characteristic appears to be the most conducive to change.

The characteristics most clearly associated with the institution in this category were: open leadership, good relations with the field, good internal communication, well integrated into the university, relatively small, an ability to diagnose and an ability to mobilize resources. An institution with this saga is well able to implement change and displays least the pathological symptoms usually associated with change in teacher education.

The internal facilitator in an institution characterized by this saga described it thus:

> I think it's that we're a reasonably cohesive group of people, that we've got some very good teachers on staff. Our big emphasis here is not on doing research and publications, but on teaching. As a result most of our people are very good teachers. They don't have the fear of going out and putting it on the line in teaching; people who've already been teaching and know what they want. My honest opinion is that a lot of the teacher educators are afraid of this because they wonder if they could actually hack it in the classroom themself. A lot of people here feel they could and they're prepared to go out and put it on the line. Another thing is that I think we're reasonably well accepted by the community of teachers around. We have some credibility. I think the reasons for that are that we are always in the schools, the fact that we've worked hard at building up credibility through public relations and so on, the fact that when I walk into a school and other people as well that I'm on a first-name basis with most of the teachers 35 miles in that direction and 35 miles in that direction. (E/I/Mu5)

This chapter has sketched out in some detail a series of conceptual categories which describe the change process in Canadian teacher education. First, the paradox of change and no change in Canadian teacher education was resolved by pointing to delinquencies in the process of implementation. Reasons for this delinquency were sought first in the barriers to change in teacher education, then in its ecology and finally in the notion of sagas which acculturate and partially control the milieu of TTIs.

When taken together these conceptual categories suggest a typology of change in teacher education which is essentially unpredictable and best described in terms of organizational drift. The reformulation of

these conceptual categories into a substantive theory of change in teacher education which explains the partial success of the intervention and the problem of change in TTIs forms the substance of the final chapter.

CHAPTER EIGHT

Drift and Change in Teacher Education

The previous two chapters have reported the findings of the study. Chapter Six assessed the impact of the survey feedback intervention, and Chapter Seven, in the light of the relative failure of the intervention, explored the wider problem of change in TTIs. Both of these chapters were well grounded in the data collected for the study, but to this point the analysis has been descriptive. This final chapter moves beyond description by posing the question, can a theory be generated to explain why TTIs have difficulty in managing change?

The first section of the chapter outlines three typologies of change which have been applied to TTIs; of these the concept of drift presaged on the previous page, appears to have the most utility. The findings of the study are summarized in the following two sections. The implications of drift are then examined, and in the final section a substantive theory of change in teacher education, based on the concept of drift, is presented.

Typologies of Change in Teacher Education

In his paper, "Organizational Change in Schools in Education" Giacquinta (1979) outlines three predominant conceptions of change which apply to TTIs. These are the Research, Development and Diffusion of Innovations (RD&D), Organizational Self Renewal, and Organizational Drift models.

The RD & D model has already been discussed in some detail. To recapitulate, it reflects a mechanistic orientation to change which

focuses on the adoption of packages of ideas at the behest of some authority figure. Most commonly, this approach is associated with 'top-down' strategies of change. The literature and the field data give evidence that in general this approach to change is not particularly effective.

Giacquinta's second strategy is organizational self renewal. As was seen in Chapter Two, it is a generic label for a number of strategies which involve a self-learning and problem-solving component. The study was an attempt to initiate such a capacity within Canadian TTIs, and as the evidence in Chapter Six suggests this approach is not conspicuously successful.

This leaves Giacquinta's third conception of change--organizational drift. He describes it this way:

> Change (occurs) as the result of impersonal, non-deliberate change forces or conditions located in the environment of an organization. These conditions impinge on an organization in such a way that alterations in organizational goals happen, for the most part haphazardly. In other words, this conception portrays an organization's structure, at any point in time, as a function of pressing environmental forces.
>
> (1979, p. 5)

The concept of drift finds support in the data collected for this study. There is no doubt that change occurs in TTIs but when it does there is a considerable time lag between its initiation and institutionalization, and during the delay the intent of the change is often distorted. To characterize: there is an initial external impetus for change, when it is strong and persistent enough, the change is reflected in some structural alterations, but rarely in the behaviours and

commitment of those affected by the change. If the impetus for change can withstand this lack of internalization and behaviour change, then over a period of time the change becomes assimilated into the culture of the institution. It becomes an artefact which begins to condition the behaviour of the actors involved. It is a long enervating process which usually involves the breaking down of perceived barriers within those who have to use the change and the gradual engendering of commitment towards it.

One example of this process stands out. The early mid-nineteen seventies witnessed a strong demand for a more practical teacher education program. Most TTIs instituted an extended practicum and some went further to initiate program change. The latter most usually occurred when a forceful group of faculty, typically young new faculty members or those from nonacademic backgrounds pursued the innovation within the TTI. This was the case here; the change was resisted by a majority of faculty for a number of years, until the pressure for this particular change became part of the institution's culture. With the realization that the change would not go away, the faculty hitherto previously opposed to the innovation decided to take part in the program changes, to work with them, and to torque these changes to match their own aspirations (L/F/22.v.80).

The following quotations from notes taken during an interview with a dean who was in the midst of prosecuting wide ranging organizational change within his faculty illustrate the process of drift:

> He has a positive feeling about the growth within this faculty. He feels that despite the tensions and the antagonism which is currently present, underneath it all growth takes place. However, that growth is

> disguised by the current adverse reactions and one cannot see the ground that has been made until one looks back. But one can't abstract oneself from the situation and see the growth because it is obscured by current dissatisfaction. Despite all that he feels it is in fact taking place (K/I/L 1+2).
>
> Talking about this resistance to change, he is not entirely pessimistic, he feels that a number of people have been won over. The pressure for change that he is exerting has continued to push some people further away, and has made them very critical of him. On the other hand, there are a good number of faculty within the middle ground who have been convinced of the necessity for change and are prepared to accept it (K/I/L 3).

There appears to be a critical point in the process where change is accepted as an inevitability and the line of least resistance is to go with it. This is the essence of the drift conception,--with enough external pressure real change will occur but not in any systematic way, except as a reflection of the particular patterns of aspirations within the institution.

Having outlined the concept of drift, it is now instructive to explore how well it fits with the findings of this study.

Survey Feedback as a Change Strategy in Teacher Education

The major hypothesis tested by the study was that an OD intervention such as survey feedback is an effective way of breaking out of the reinforcing pattern of drift in TTIs. Such an intervention has the theoretical power to transform an institution's capacity to facilitate change. Linked together in one intervention are the three aspects of a successful effort: information on the actual situation in the TTI, information about the external demand for change, and a process which is able to transform the inhibiting contextual variables within the institution. This latter aspect provided the focus of the study, for

within any specific situation the reality within and outside an institution is given, yet the process of change is open to alteration. The effectiveness of the independent variable was assessed against six organizational dimensions (viz communications, goals, problem solving, decision making, climate and implementation). A model for intervention was developed, and an attempt made to use it in the twelve TTIs of the sample.

The finding from Chapter Six was that a survey feedback intervention is no panacea. The fact that only a third of the sample experimented with the model in its entirety shows how its utility is limited to certain situations and conditions. The situation is determined by the institution's readiness to accept an OD intervention. In practice this means that OD interventions like this are most effective in making 'mid-course corrections', rather than correcting gross abnormalities in functioning. The conditions reflect the features of the model. It was found that the model was most effective when it was applied in its entirety and equal emphasis given to each stage of the process. This is not easy, especially given the finding that each subsequent stage was increasingly difficult to implement. A number of guidelines were suggested on the basis of the research which condition the nature of the intervention. These were, that it operate at the subgroup as opposed to system level, it be associated with the implementation of a task the subgroup regards as important, that the readiness of the subgroup be assessed prior to intervention, and that it extends over an appropriate (i.e., 2+ years) period of time.

In summary, the study has made and to an extent sustained the argument that one way to break the reinforcing pattern of drift in TTIs is by the use of a survey feedback OD intervention. The intervention's ability to generate a capacity for change in TTIs is moderately substantiated by the data, at least on four of the six dimensions associated with the concept. However, the intervention's utility appears limited to those institutions who do not exhibit an extreme organizational pathology. In addition the evidence from the study suggested certain conditions within which the intervention needs operate. The study produced no data on the longevity of effects associated with such an intervention.

The Substantive Problem--Change in Teacher Education: Summary

Early in the study a distinction was made between three different types of change,--accidental change, purposive change, and innovation. Although differing widely in their specificity and the control each allows an institution over its own fate, these three forms of change can be ordered because they each engage the institution in a similar process. In practice this means that although the institutional response to these differing types of change may appear very different, in reality they engage the institution in similar actions. Each of these categories draws on similar capacities within the institution. It is for this reason that despite its vagueness the word change has been used throughout the study with little qualification.

The concern of the study has been to explore the process of institutional change in teacher education. The process is characterized by

the interaction of two forces: the demand for change (which is externally motivated) and the contextual variables within an institution which resist the pressure for change. This process which inhibits the institution's ability to react to change was illustrated in Figure 2:3a. Evidence has been cited throughout the study to support the contention that in general the pressure for change comes from outside the institution. In addition a major effort has been made to understand the nature of the contextual variables which hinder the process of change within TTIs.

My attempt at understanding has been conducted on a number of levels. First, I postulated theoretical dimensions relating to organizational effectiveness: viz, Communication, Goals, Problem Solving, Decision Making, Climate and Implementation. A theoretical argument was made to explain why TTIs tend to possess low capacity on these dimensions. Second, an empirical analysis of the barriers to change in teacher education was made. A list of barriers (see Figure 7:2), both real and perceived, existing at different levels within the institution (i.e., systemic, organizational, and individual) were identified. Third, an attempt was made to understand the ecology of contemporary teacher education. The norms of the university, the role crisis of TTIs in particular the teacher's college legacy and the difficulty in meeting the twin goals of academic standards and professional preparation, and the vulnerability of TTIs to their environment, were identified as the major ecological factors contributing to the inability of TTIs to effectively manage change. Finally a taxonomy of institutional resistance to change was suggested. The argument being that TTIs engender a saga

which has grown out of the tension between the pressure for and resistance to change. This saga has the power to inhibit change, but varies according to the internal characteristics and external situation of the institution.

It is the power of the sagas which explains the little or negative affect associated with dimensions of climate and implementation. As was noted in a recent paper (Wideen, Hopkins & Fullan, 1980) the dimensions associated with communication, goals, prob'em solving and decision making, are behaviours relatively easy to change in the short term, however those associated with implementation and climate reflect a deeper condition within the institution.

It is inevitable in any change effort that the situation will deteriorate before it improves. This was certainly true with this intervention, because feedback tended to expose a number of weaknesses within the institution. When this occurs in an institution with a poor image of itself, the image is reinforced and it is inevitable that perceptions of the climate deteriorate. It also partially explains the lack of movement on the implementation dimension; if success in implementation is not evident in the short term then it reinforces the image of an institution with deficiencies in its capacity to change. Unfortunately, given the length of time required for an effective OD intervention and the length of time required to drift, it is unlikely that short-term success will occur, so the negative and debilitating self-image is reinforced.

To recapitulate the argument, in chapter seven the paradox of change and no change in Canadian teacher education first mentioned in chapter one, was explained by the failure of implementation. The ability to change at the level of structure but not at the level of practice has been a consistent theme throughout the study and is a major aspect of drift. Drift as a model of change occurs as a result of sustained external pressure, but its result is essentially unpredictable because of the nature of the institutions concerned. The reasons for this unpredictability of outcome have been analyzed in detail; first on a theoretical level by identifying inhibiting contextual variables, second at the level of organizational barriers to change, then in a more situational context, by analyzing the impact of the university ethos on the TTI, its inability to define its role, and its vulnerability to the environment. Individual differences between institutions were explained by sagas and images of change which acculturate an institution over a period of time. Finally, it is unsurprising that those institutions most amenable to change were those that were small, had conceptualized their purpose and had a relatively equable ecology. The facets of drift articulated in this chapter would apply least to them.

Implications of Drift

As drift is the central concept emerging from the study it is instructive to explore briefly the implications of the phenomenon. Drift appears to have three major implications: first, it conditions the way in which we perceive change; second, it affects the

quasi-professional nature of teacher training institutions; and third, it is at the root of the theory practice gap in Canadian teacher education.

Drift conditions the way we should perceive change in two ways. First, it emphasizes the importance of taking the contextual variables operating within an institution into account in any change effort. Second, it highlights the dimensions associated with the institutionalization of change. Not only do the structural dimensions have to be catered to (i.e., changes in policy, organization and materials), but also the people dimensions (i.e., role and behaviour, knowledge and understanding, and internalization). This latter point is extremely important, for drift occurs as a result of a shift in perception of those actors most involved in the change.

Drift affects the quasi-professional nature of teacher education. Teacher education's quasi-professional nature is the result of teacher educators' inability to adequately conceptualize their role (Pedersen, 1974). It is demonstrated in the tension the TTIs experience between the university and the school system, which is a tension they appear unable to resolve. This is an important point. If an institution has adequately conceptualized its role on its terms, but its significant others are disturbed by the direction it is taking, then the institution is deluding itself. Only when the institution can coexist in relative harmony with its client system, society in general and the norms of its discipline, can it claim to have achieved ecological equilibrium.

This point is well made in the following extracts from an interview with an internal facilitator:

> If you conceive of yourself as a humanistic centre and people and students perceive it as being inhumanistic and you don't know it, then it's problematic. . . . we're still training and upgrading teachers, there is a serious continuing education element in the department. The percentage of students who come here as scholars to study is very low, the place can say that that is its purpose, but the students aren't perceiving it. . . . If your department is analyzing and criticizing the school districts and systems in particular kinds of ways, but doesn't level that kind of analysis or criticism upon itself then it's just so much a lack of accountability (F/I/HE 2).

The inability to resolve the tension reflects specifically on the TTI's ability to define a role for themselves within their contemporary situation which, as has already been argued, is one of the factors contributing to the phenomenon of drift. The argument, albeit somewhat circular, illustrates the compounding problem of contemporary teacher education. Unless some way is found into this reinforcing pattern the organizational problems caused by drift will only deteriorate.

Drift is also at the root of the gap between theory and practice in Canadian teacher education. It has been argued elsewhere (Hopkins, 1979b & 1980a; Fullan et al., forthcoming) that the integration of theory and practice is the most pressing problem facing contemporary Canadian teacher education. There are two aspects to this. The first is alluded to in the previous point—the inability to resolve the tension between the school and university systems. Even when a TTI

has resolved the dichotomy to its own satisfaction, it is only a chimera if (as in the case in every institution of this sample) its significant others (i.e., the central university administration, the prominent teachers federation, the ministry of education or the public, etc.) are dissatisfied with the resolution. The tension created in TTIs by attempting to serve multiple masters is thus paralleled in their inability to effectively integrate theory and practice. The second aspect to this is best illustrated by reference to data emanating from the project. The goal of preparing teachers to effectively integrate theory and practice was ranked the lowest but one (the only goal ranked lower was, "to prepare teachers who have the perceptions and skills to implement changes in the schools"!) in importance by the aggregate sample. Yet when asked an open-ended question, "What are the foremost issues facing Canadian teacher education faculties today?" the majority of responses were: 'the integration of theory and practice'. There are a number of meanings which could be attached to this paradox. One is the realization on the part of faculty that the integration of theory and practice is something not well done, yet important to do well, but they lack the ability to do anything about it. The inability to take control of such a major problem contributes to a perception of impotence which, as was seen in the discussion on sagas, is a major contributor to drift.

This section has summarized the main implications of the phenomenon of drift, which is the central concept emerging from the study.

A Theory of Drift as Change in Teacher Education

It is now appropriate to formalize the notion of drift into a substantive theory of change in teacher education. This chapter has taken Giacquinta's hypothetical concept and tested it against the data of the study. The result is a grounded theory which has power to resolve, analyze, explain and predict aspects of the process of change in teacher education.

1. Change in teacher training institutions occurs as a result of sustained external pressure.
2. The pressure is resisted by TTIs because of organizational pathology (contextual variables), barriers to change which exist within the institution, the TTIs' uncertainty as to the contemporary situation, and sometimes because the change is pushing the wrong way.
3. When the pressure for change is strong and persistent enough to be sustained over a period of time, it becomes assimilated into the culture of the organization. As the culture conditions the behaviour of organization members, it results in a gradual commitment on the part of institution members towards the change. This commitment is conditioned by the influence or the saga that acculturates the institution.
4. This commitment eventually results in the institutionalization of the change. The character of the change, however, is essentially unpredictable, because the change has been assimilated gradually.

On what grounds is this claim to theory made? It is substantive (because at the present time) it applies only to teacher education, and grounded because it has been generated from the phenomena to which it applies. There are, however, other criteria that have to be met.

In The Discovery of Grounded Theory, Glaser and Strauss (1967) outline the criteria upon which such a claim to theory must be based:

> The practical application of grounded sociological theory, whether substantive or formal, requires developing a theory with (at least) four highly interrelated properties. The first requisite property is that the theory must closely fit the substantive area in which it will be used. Second, it must be readily understandable by laymen concerned with this area. Third, it must be sufficiently general to be applicable to a multitude of diverse daily situations within the substantive area, not to just a specific type of situation. Fourth, it must allow the user partial control over the structure and process of daily situations as they change through time. (p. 237)

It is instructive to assess how well this substantive theory matches the criteria outlined by Glaser and Strauss.

The criterion of fitness reflects the congruence of the theory to the data from whence it was generated. This is difficult for the reader to assess without recourse to the field notes and an understanding of the machinations of the author's mind. The methodology if employed correctly, however, ensures a degree of congruence, and further triangulation can be obtained by reference to the other three criteria.

The criterion of understanding implies that the theory will make sense and be understandable to people working in the substantive area,

in this case teacher education. Do the hypotheses outlined in this chapter appear plausible to the reader? As long as they do, then their purpose will have been met; irrespective of whether they are eventually proven somewhat right or wrong. This is because they will have assisted in practical thinking about the substantive area and allowed the readers to refine their own hypotheses and develop new applications of the theory.

The criterion of generality implies that the theory is flexible enough to make a wide variety of situations understandable, and flexible enough to allow reformulation. For example, a dean would be better able to understand the dynamics of change in his or her faculty using the concept of drift. This experience would enable this individual to expand and refine the concept in action.

This example can also relate to the final criterion of control. Understanding that change occurs by drift empowers the dean. This individual is then able to use the concept, and the understanding of the saga of the institution to increasingly refine his or her ability to predict and control outcomes.

In this way a connected series of hypotheses has become a substantive theory. But it is essentially a fluid concept; this is theory in process, the analysis has utility only if it is used and refined. For grounded theory is applicable in situations as well as to them. In this way the concept of drift explains the problem of change in teacher education and points to ways of resolving it.

APPENDIX ONE

Interview Schedule

1. Let us consider some aspects of the Teacher Education project in your institution.

   As you reflect on the project does any part of the process stand out in your mind?

   Probes: 1.1 What gave you that impression?

   1.2 Can you tell me more about...?

   1.3 How do you mean...?

   1.4 How did you feel when...?

   1.5 How centrally involved were you in the process?

2. Now I would like to review the research in a little more detail. Having now discussed and thought about the project, what were your reactions to the:

   2.1 Data Collection phase?

   2.2 Survey Data Feedback phase?

   2.3 Follow Through phase?

   Probes:

   2.1,2,3 -1 When did each phase occur?

   -2 What exactly happened? (Meetings - Outcomes).

   -3 Who were involved?

   -4 What were the most significant/important aspects in each phase? (How many faculty/departments involved?).

-5 How extensive was each phase? (How many faculty/ departments involved?).

-6 Did you feel that your faculty/department felt a sense of ownership towards the project? If so why? or why not?

-7 How useful/effective were the training sessions held at Banff (December 1978) and at Saskatoon (June 1979) or at Acadia (July 1979)?

-8 How effectively were the roles of internal facilitator and external consultant employed during the project in your institution?

3. One of the purposes of the project was to explore the nature of change in Teacher Education. Reflecting on your experience: What is your perception of change in Teacher Education? How would you characterize the process of change in Teacher Education?

Probes: 3.1 How would you characterize the change process in your institution (prehistory)?

3.2 What are the major barriers to change?

3.11 In your institution?

3.12 With Teacher Education generally?

3.3 What are the systemic characteristics which inhibit change?

3.4 What are the facilitating forces for change in Teacher Education?

3.5 What are the differing types of change acting on Teacher Education?

3.6 How important are external or environmental influences as sources of change in your institution?

4. Having been through the experiences of the project: How would you assess the effectiveness of a Survey Data Feedback intervention in promoting change in Teacher Education?

Probes: 4.1 Impact of Feedback on faculty?

4.11 Informally

4.12 Formally

4.2 Did the process create energy or dissonance for change?

4.21 If so how?

4.22 What happened?

4.3 Were there any unanticipated events as a result of the project?

4.4 Did the process affect subgroups within the institution differently?

4.41 If so how?

4.42 What happened?

4.5 In particular, how was the

4.51 Institution

4.52 Differing subgroups

affected on the following dimensions:

4.51, 52 -1 Communication Patterns

-2 Goals

-3 Problem Solving

-4 Decision Making

-5 Climate

-6 Implementation

APPENDIX TWO

Interview Schedule

(Note: Begin interview with a brief overview of project - its objectives, survey, case studies, feedback; determine if respondent is familiar with questionnaire. Include explanation of how faculties were selected and then how 'interviewees' were selected.)

1. Biographic Data

   (Much of this should come from the interview exchanges).

   Name

   Position

   Length of time at faculty

   Level specializing in

   Curriculum specialization

   Academic Background

   Teaching Background

   Committee, task force experience

2. Philosophy, Goals, Practices, Climate

   a. How would you characterize the underlying philosophy of the Faculty's education program?

   b. What are the program's major goals?

   c. What is the strongest aspect of its instructional practices?

   d. What is the weakest aspect of its instructional practices?

   e. Does the program address equally well the concerns of theory and practice?

f. Ask question on role relationships among students, faculty and administrators (include receptivity, understanding, communication, involvement).

3. Program Change and Approaches to Change

a. What changes have occurred in the last two years? How receptive is the department/faculty to change?

b. What is the most needed change in the program?

c. Considering how the faculty has dealt with changes, how would you characterize its approach? Probe decision making structure re decision to adopt, rationale, planning, implementation. Probe roles of faculty, students and administration.

4. Outcomes/Program Evaluation

a. How well does the program at this faculty prepare students for teaching in the elementary/secondary schools? How well does it prepare them to deal with contemporary educational issues?

b. What advice would you give to a person considering teaching as a career (i.e., entering the faculty's teacher education program)?

5. Educational Issues

a. What is the foremost issue that this faculty must deal with over the next two years?

b. What are the foremost issues facing faculties of education today?

c. Probe environmental issues (e.g., job markets, alternative roles for faculty, declining enrolments, etc.).

6. Evaluation of Teacher Education Project

a. How was the project introduced? What were your expectations?

b. How realistic are the objectives of this project?

Probe - re providing the faculty with useful information for program, work climate, assessment and review.

c. Probe barriers/problems and support re information use assuming that the study does provide useful information.

7. Miscellaneous

What do you see yourself doing career-wise in five years?

APPENDIX THREE

Criteria for Assessing (In) Effectiveness of Survey Feedback Intervention

SCALE	CRITERIA
+ 5	Systematic attempt to increase effectiveness on dimension at faculty level
+ 4	Systematic attempt to increase effectiveness on dimension at department level
+ 3	Concrete instance(s) of effect related to dimension
+ 2	Minor concrete instance(s) of effect related to dimension
+ 1	Increase in informal discussion related to dimension
0	No effect
- 1	Perceived mild reduction of effectiveness on dimension
- 2	Perceived moderate reduction of effectiveness on dimension
- 3	Perceived major reduction of effectiveness on dimension

- These criteria can be applied to each of the six dimensions associated with a capacity for change viz., communication, goals, problem solving, decision making, climate and implementation.
- Negative scores based on perceptions of interviewees.
- Positive scores based on observations and evidence of actual events, as well as perceptions of interviewees.

BIBLIOGRAPHY

Adams, J., & Sherwood, J. J. An evaluation of organizational effectiveness: An appraisal of how army internal consultants use survey feedback in a military setting. Group and Organization Studies, June 1979, 4(2).

Alderfer, C. P. Organization development. Annual Review of Psychology, 1977, 28, 197-223.

Alderfer, C. P., & Brown, L. D. Questionnaire design in organizational research. Journal of Applied Psychology, 1972, 56, 456-460.

Alderfer, C. P., & Ferris, R. Understanding the impact of survey feedback. In W. W. Burke & H. A. Hornstein (Eds.), The social technology of organizational development. Fairfax, Va.: National Training Institutions, 1972.

Alderfer, C. P., & Holbrook, J. A new design for survey feedback. Education and Urban Society, 1973, 5, 437-464.

Aoki, T. T. Toward curriculum inquiry in a new key. Occasional Paper No. 2, Edmonton Department of Secondary Education, University of Alberta, 1979 (a).

Aoki, T. T. Curriculum inquiry from a critical perspective. In W. Werner (Ed.), Curriculum Canada. Vancouver: University of British Columbia, 1979 (b).

Aoki, T. T. Interests, knowledge and evaluation: Alternative approaches to curriculum evaluation. Lecture prepared for the 1980 Summer Institute for Teacher Education at Simon Fraser University. In D. Hopkins & M. Wideen (Eds.), Alternative perspectives for school improvement. Book in preparation, 1980 (a).

Aoki, T. T. Towards a reconceptualization of curriculum implementation. Lecture prepared for the 1980 Summer Institute for Teacher Education at Simon Fraser University. In D. Hopkins & M. Wideen (Eds.), Alternative perspectives for school improvement. Book in preparation, 1980 (b).

Argyris, C. A. Intervention theory and method. Reading, Mass.: Addison-Wesley, 1970.

Argyris, C. A., & Schon, D. A. Organizational learning: A theory of action perspective. Reading, Mass.: Addison-Wesley, 1978.

Baldridge, J. V. Power and conflict in the university. New York: John Wiley, 1971.

Baldridge, J. V. Educational innovation: The political dynamics of change. Paper prepared for the Bank Street College of Education and the Bureau for the Education of the Handicapped, U.S. Office (now Department) of Education, 1980.

Baldridge, J. V., & Deal, T. E. (Eds.). Managing change in educational organizations. Berkeley, Ca.: McCutchan, 1975.

Bassin, M., Gross, T., & Jordan, P. Developing renewal processes in urban high schools. Theory into Practice, April 1979, 18(2), 73-81.

Becker, H. S. Problems of inference and proof in participant observation. American Sociological Review, December 1958, 28, 652-660.

Becker, H. S., & Geer, B. Participant observation: The analysis of qualitative field data. In R. N. Adams & J. J. Preiss, Human organization research. Homewood, Ill.: Dorsey Press, 1960, pp. 267-289.

Becker, H. S., Geer, B., & Hughes, E. Making the grade: The academic side of college life. New York: John Wiley, 1968.

Bennis, W. G. Who sank the yellow submarine? In J. V. Baldridge & T. E. Deal (Eds.), Managing change in educational organizations. Berkeley, Ca.: McCutchan, 1975.

Bennis, W. G., Benne, K. D., & Chin, R. (Eds.). The planning of change. New York: Holt, Rinehart & Winston, 1969.

Bergquist, W. H., & Shoemaker, W. A. A comprehensive approach to institutional development. New Directions for Higher Education, Autumn 1976, 5(3).

Berman, P., & McLaughlin, M. W. Federal programs supporting educational change (8 vols.). Santa Monica, Ca.: Rand Corporation, 1975-1977.

Berman, P., & McLaughlin, M. W. Implementation of educational innovation. The Educational Forum, 1976, 40, 345-370.

Bernstein, B. On the classification and framing of educational knowledge. In M. F. D. Young (Ed.), Knowledge and control. London: Collier Macmillan, 1971.

Bidwell, C. The school as a formal organization. In J. G. March (Ed.), Handbook of organizations. Chicago: Rand McNally, 1965.

Blake, R. R., & Mouton, J. S. Corporate excellence through grid organization development: A systems approach. Houston, Tex.: Gulf, 1968.

Bolam, R. The management of educational change: Towards a conceptual framework. In V. Houghton, R. McHugh, & C. Morgan (Eds.), Management in education (Vol. 1). London: Ward Lock Educational, 1975.

Bolton, C. R., & Boyer, R. Organizational development for academic departments. In R. K. Boyer & C. Crockett (Eds.), Organizational development in higher education (Special Issue). Journal of Higher Education, May 1973, 44(5).

Bowers, D. G. Organizational development techniques and their results in 23 organizations: The Michigan I. C. L. Study. Journal of Applied Behavioural Science, 1973, 9, 21-43.

Bowers, D. G. Navy manpower: Values, practices, and human resource requirements. Ann Arbor, Mich.: Institute for Social Research, 1975.

Bowers, D. G. Organizational development: Promises, performances, possibilities. Organizational Dynamics, 1976, 4(4), 50-62.

Bowers, D. G., & Franklin, J. L. Survey guided development: Using human resources measurement in organizational change. Journal of Contemporary Business, 1972, 1, 43-55.

Bowers, D. G., & Franklin, J. L. Basic concepts of survey feedback. In J. Pfeiffer & J. Jones, The 1974 annual handbook for group facilitators. La Jolla, Ca.: University Associates, 1974.

Bowers, D. G., & Franklin, J. L. Survey guided development: Data based organizational change (rev. ed.). La Jolla, Ca.: University Associates, 1977.

Bowles, S., & Gintis, H. Schooling in capitalist America. New York: Basic Books, 1976.

Boyer, R. K. New applications in OD: The university. Paper presented at the Symposium on new application in OD. OD Division, Academy of Management, Seattle, August 1974.

Boyer, R. K., & Crockett, C. (Eds.). Organizational development in higher education (Special Issue). Journal of Higher Education, May 1973, 44(5).

Burke, W. W. (Ed.). The cutting edge. La Jolla, Ca.: University Associates, 1978.

Callahan, D. M., & Lake, D. G. Changing a community college. Education and Urban Society, 1973, 6, 22-48.

Campbell, R. F. A history of administrative thought. Administrators Notebook, 1977-1978, 26(4).

Chamberlin, T. C. The method of multiple working hypotheses. Science, May 1965, 148, 754-759.

Chesler, M., & Flander, M. Resistance to research and research utilization: The death and life of a feedback attempt. Journal of Applied Behavioural Science, 1967, No. 4, pp. 469-487.

Clark, B. R. The organizational saga in higher education. In J. V. Baldridge & T. E. Deal (Eds.), Managing change in educational organizations. Berkeley, Ca.: McCutchan, 1975.

Cooke, R. A., & Coughlan, R. J. Developing collective decision making and problem solving structures in schools. Group and Organization Studies, March 1979, 4(1).

Coughlan, R. J., & Cooke, R. A. The structural development of educational organizations. Ann Arbor, Mich.: Survey Research Center, 1974.

Crockett, C. The higher education institute: A vehicle for change. In R. K. Boyer & C. Crockett (Eds.), Organizational development in higher education (Special Issue). Journal of Higher Education, May 1973, 44(5).

Dalin, P. Limits to educational change. London: Macmillan, 1978.

Dalin, P., & Rust, V. Can schools learn? IMTEC (forthcoming).

Davies, J. A. Bangor Normal College. IMTEC Case Study. Oslo: IMTEC, 1978.

Derr, C. B. 'OD' won't work in schools. Education and Urban Society, 1976, 8(2), 227-241.

Dill, D. D., & Friedman, C. P. An analysis of frameworks for research on innovation and change in higher education. Review of Educational Research, Summer 1979, 49(3), 411-435.

Dunn, W. N., & Swierczek, F. W. Planned organizational change: Towards grounded theory. Journal of Applied Behavioural Science, 1977, 13(2), 135-157.

Ellsworth, P. C. From abstract ideas to concrete instances: Some guidelines for choosing natural research settings. American Psychologist, August 1977, pp. 604-615.

Emrick, J. A., & Peterson, S. M. A synthesis of findings across five recent studies in educational dissemination and change (rev. ed.). Educational knowledge dissemination and utilization, Occasional Paper Series. The National Institute of Education. San Francisco: Far West Laboratory, June 1978.

Evans, R. I. Resistance to innovation in higher education. San Francisco: Jossey-Bass, 1968.

Everhart, R. B. Between stranger and friend: Some consequences of "long term" fieldwork in schools. American Educational Research Journal, Winter 1977, 14(1), 1-15.

Franklin, J. L. Characteristics of successful and unsuccessful OD. Journal of Applied Behavioural Science, 1976, 12(4), 471-492.

Franklin, J. L. Human resource development in the organization. Detroit: Gale Research Company, 1978.

Franklin, J. L., Wissler, A. L., & Spencer, G. J. Survey guided development III: A manual for concepts training (rev. ed.). La Jolla, Ca.: University Associates, 1977.

Freire, P. Pedagogy of the oppressed. Harmondsworth, Eng.: Penguin, 1972.

Freire, P. Education for critical consciousness. New York: Seabury Press, 1973.

French, W. L., Bell, C. H., & Zawacki, R. A. Organization development: Theory, practice and research. Dallas: Business Publications, 1978.

Friedlander, F., & Brown, L. D. Organization development. Annual Review of Psychology, 1974, 75, 313-341.

Frohman, M. A., Sashkin, M., & Kavanagh, M. J. Action research as applied to organization development. Organization and Administrative Sciences, Spring/Summer 1976, 7 (1 & 2), 129-142.

Freye, N., Seiffert, G., & Yancy, J. Organizational change through feedback and research (OD) efforts. Group and Organization Studies, September 1977, 2(3).

Fullan, M. Conceptualizing problems of curriculum implementation. In W. Werner (Ed.), Curriculum Canada. Vancouver: The University of British Columbia, 1979.

Fullan, M., & Miles, M. B. OD in schools: The state of the art. In W. W. Burke (Ed.), The cutting edge. La Jolla, Ca.: University Associates, 1978.

Fullan, M., Miles, M. B., & Taylor, G. OD in schools: The state of the art. Final report to the N. I. E. (5 vols.). Toronto: The Ontario Institute for Studies in Education, August 1978.

Fullan, M., Miles, M. B., & Taylor, G. Organization development in schools: The state of the art. Review of Educational Research, Spring 1980, 50(1), 121-183.

Fullan, M., & Pomfret, A. Research on curriculum and instruction implementation. Review of Educational Research, Winter 1977, 47(1), 335-397.

Fullan, M., Wideen, M., Barr, E., Diamond, C., Eastabrook, G., & Hopkins, D. A study of teacher education in Canada: Faculty and student questionnaires. Toronto: The Ontario Institute for Studies in Education, 1979 (Mimeo).

Fullan, M., Wideen, M., Diamond, C., & Hopkins, D. The management of change in teacher education: Interim report to the S. S. & H. R. C.. Burnaby, B.C.: Simon Fraser University, 1979 (Mimeo).

Fullan, M., Wideen, M., & Hopkins, D. The management of change in teacher education: Final report to the S. S. & H. R. C. (5 vols.). Forthcoming.

Gaff, J. G. Toward faculty renewal. San Francisco: Jossey-Bass, 1975.

Getzels, J. W. Creative administration and organizational change: An essay in theory. In L. J. Rubin & J. C. Parker (Eds.), Frontiers in school leadership. Chicago: Rand McNally, 1970.

Giacquinta, J. B. Organizational change in schools of education: A review of several models and an agenda of research. In D. Griffith, D. Griffith, & D. McCarty (Eds.), The dilemma of the deanship. Interstate, 1979.

Glaser, B. G., & Strauss, A. L. The discovery of grounded theory. Chicago: Aldine, 1967.

Golembiewski, R. G., & Munzenrider, R. Social desirability as an intervening variable in interpreting OD effects. Journal of Applied Behavioural Science, 1975, 11(3), 317-332.

Greenfield, T. B. Organizations as social inventions: Rethinking assumptions about change. Journal of Applied Behavioural Science, 1973, 9(5), 551-574.

Greenfield, T. B. Theory about organizations: A new perspective and its implications for schools. In V. Houghton, R. McHugh, & C. Morgan (Eds.), Management in Education (Vol. 1). London: Ward Lock Educational, 1975.

Gross, N., Giacquinta, J. B., & Bernstein, M. Implementing organizational innovations: A sociological analysis of planned educational change. New York: Harper & Row, 1971.

Guba, E. G. Toward a methodology of naturalistic inquiry in educational evaluation. Center for the Study of Evaluation, Monograph 8. Los Angeles: U. C. L. A., 1978.

Guba, E. G., & Clark, D. L. An examination of potential change roles in education. Quoted in Strategies for Educational Change, Newsletter No. 2. Columbus: Ohio State University, October 1965.

Guba, E. G., & Clark, D. L. Levels of R. and D. productivity in schools of education. Educational Researcher, 1978, 7(5), 3-9.

Habermas, J. Knowledge and human interest. London: Heinneman Educational Books, 1972.

Hamilton, D., MacDonald, B., King., C., Jenkins, D., & Parlett, M. (Eds.). Beyond the numbers game. Berkeley, Ca.: McCutchan, 1977.

Hand, H., Estafen, B., & Sims, H. How effective is data survey feedback as a technique of organizational development? Journal of Applied Behavioural Science, 1975, 4.

Hargreaves, D. H. Social relations in a secondary school. London: Routledge & KeganPaul, 1967.

Hausser, D. L., Pecorella, P. A., & Wissler, L. A. Survey guided development: A manual for consultants (rev. ed.). La Jolla, Ca.: University Associates, 1977.

Havelock, R. G. Planning for innovation through dissemination and utilization of knowledge. Ann Arbor, Mich.: University of Michigan Institute for Social Research (C. R. U. S. K.), 1969.

Heise, A. An inventory of academic innovation and reform. New York: McGraw-Hill, 1973.

Hopkins, D. The role of survey feedback in institutional change. Paper presented at the Canadian Association for Teacher Education conference, Saskatoon, June 1979(a).

Hopkins, D. Responsive evaluation and institutional development in Canadian teacher education. Paper presented at the British Educational Research Association conference, Brunel University, September 1979(b).

Hopkins, D. The role of the practicum in bridging the gap between school and university. Paper presented at the Western Canadian Association for Teacher Education conference, Edmonton, March 1980(a).

Hopkins, D. Survey feedback and the problem of change in teacher education: some initial findings. Paper presented at the Canadian Association for Teacher Education conference, Montreal, June 1980(b).

Hopkins, D., & Wideen, M. (Eds.). Alternative perspectives for school improvement. Book in preparation, 1980.

Houghton, V., McHugh, R., & Morgan, C. (Eds.). Management in education (Vol. 1). London: Ward Lock Educational, 1975.

House, E. Technology versus craft: A ten year perspective on innovation. Journal of Curriculum Studies, 1979, 2(1), 1-15.

Hoyle, E. Strategies of curriculum change. Unit 23, Open University Course E203: Curriculum design and development. M. Keynes, Open University Press, 1976.

Huguenin, K. M., & Deal, T. E. The effects of an externally-directed organizational change intervention on the structure of a small elementary school district. Paper presented at A. E. R. A., New York, June 1977. Stanford Center for Research and Development in Teaching (Mimeo).

Illich, I. D. Deschooling society. Harmondsworth, Eng.: Penguin, 1971.

Jackson, P. W. Life in classrooms. New York: Holt, Rinehart & Winston, 1968.

Jenks, R. S. An internal change agent's role in restructuring university governance. In R. K. Boyer & C. Crockett (Eds.), Organizational development in higher education (Special Issue). Journal of Higher Education, May 1973, 44(5).

Kahn, R. L. Organization development: Some problems and proposals. Journal of Applied Behavioural Science, 1974, 10(4), 485-502.

Katz, D., & Kahn, R. L. The social psychology or organizations (2nd ed.). New York: John Wiley, 1978.

Lacey, C. Hightown grammar. Manchester, Eng.: Manchester University Press, 1970.

Lazarsfeld, P. F., & Barton, A. H. Qualitative measurement in the social sociences: Classification, typologies, and indices. In D. Lerner & H. D. Lasswell, The policy sciences. Stanford: Stanford University Press, 1951, pp. 155-193.

Lewin, K. Action research and the minority problem. Journal of Social Problems, 1946.

Lewin, K. Frontiers in group dynamics I: Concepts, method and reality in social science, social equilibrium and social change. Human Relations, 1947, 1(1), 5-42.

Lindquist, J. Political linkage: The academic innovation process. Journal of Higher Education, 1974, 45, 323-343.

Lippitt, R., Watson, J., & Westley, B. The dynamics of planned change. New York: Harcourt Brace, 1958.

Lippitt, R., Hooyman, G., Sashkin, M., & Kaplan, J. Resourcebook for planned change. Ann Arbor, Mich.: Human Resource Development Associates, 1978.

Locke, E. A., Cartledge, N., & Koeppel, J. Motivational effects of knowledge of results: A goal setting phenomenon. Psychological Bulletin, 1968, 70, 474-485.

Lortie, D. C. Schoolteacher: A sociological study. Chicago: University of Chicago Press, 1975.

McElvaney, C. T., & Miles, M. B. Using survey feedback in consultation. In R. A. Schmuck & M. B. Miles (Eds.), Organizational development in schools. La Jolla, Ca.: University Associates, 1971.

Mcgregor, D. M. The human side of the enterprise. New York: McGraw-Hill, 1960.

Mann, F. C. Studying and creating change: A means to understanding social organization. In C. M. Arensbert (Ed.), Research in industrial human relations: A critical appraisal. New York: Harper & Row, 1957.

Mann, F. C., & Likert, R. The need for research on the communication of research results. Human Organization, 1952, 2, 15-19.

Marguilies, N. Organizational development in a university setting: Some problems on initiating change. Educational Technology, October 1972, 12(10).

Marguilies, N., Wright, P. L., & Scholl, R. W. Organization development techniques: Their impact on change. Group and Organization Studies, December 1977, 2(4), 428-448.

Martorana, S. V., & Kuhns, E. Managing academic change: Interactive forces and leadership in higher education. San Francisco: Jossey-Bass, 1975.

Merton, R. K., & Kendall, P. The focused interview. American Journal of Sociology, May 1946, 50, 541-557.

Meyer, J. W. Notes on the structure of educational organizations. Occasional Paper No. 3. Stanford, Ca.: Stanford University, June 1975.

Meyer, J. W., & Rowan, B. Institutionalized organizations: Formal structure as myth and ceremony. Stanford Center for R. & D. in Teaching, 1976.

Miles, M. B. Organizational development in schools: The effects of alternative strategies of change. New York: Horace Mann-Lincoln Institute, Columbia University, 1963 (Mimeo).

Miles, M. B. Innovation in education. New York: Teachers College Press, 1964.

Miles, M. B. Some properties of schools as social systems. In Watson & Goodwin (Eds.), Change in school systems. Washington: COPED/NTL, 1976.

Miles, M. B. The consequences of survey feedback: Theory and evaluation. In W. G. Bennis, K. D. Benne, & R. Chin (Eds.), The planning of change (2nd ed.). New York: Holt, Rinehart & Winston, 1969, pp. 457-468.

Miles, M. B. Data feedback and organizational change in a school system. In R. T. Golembiewski & A. Blumberg (Eds.), Sensitivity training and the laboratory approach. Itaxa, Ill.: F. E. Peacock, 1970, pp. 352-361.

Miles, M. B. Data feedback: A rationale. In H. Hornstein (Ed.), Social intervention: A behavioural science approach. New York: Free Press, 1971.

Miles, M. B. Planned change and organizational health: Figure and ground. In J. V. Baldridge & T. E. Deal (Eds.), Managing change in educational organizations. Berkeley, Ca.: McCutchan, 1975.

Mohrman, A. M., Cooke, R. A., & Duncan, R. B. A survey feedback organization development program for educational systems. Paper presented at the meeting of the American Psychological Association, Chicago, August 1975.

Mohrman, S. A., Mohrman, A. M., Cooke, R. A., & Duncan, R. B. A survey feedback and problem solving intervention in a school district. "We'll take the survey but you can keep the feedback." In P. Mirvis & D. Berg, Failures in organizational development and change. Toronto: Wiley Interscience, 1977.

Morrison, P. Evaluation in OD: A review and an assessment. Group and Organization Studies, March 1978, 3(1), 42-70.

Nadler, D. A. The use of feedback for organizational change: Promises and pitfalls. Group and Organization Studies, June 1976, 1(2), 177-186.

Nadler, D. A. Feedback and organization development: Using data based methods. Reading, Mass.: Addison-Wesley, 1977.

Nadler, D. A. Alternative data feedback designs for organizational intervention. In J. James & J. Pfeiffer, The 1979 annual handbook for group facilitators. La Jolla, Ca.: University Associates, 1979.

Neff, F. W. Survey research: A tool for problem diagnosis and improvement in organizations. In A. W. Gouldner & S. M. Miller (Eds.), Applied sociology. New York: Free Press, 1965, pp. 23-39.

Nicholas, J. M. Evaluation research in organizational change interventions: Considerations and some suggestions. Journal of Applied Behavioural Science, 1979, 15(1), 23-39.

Parlett, M., & Hamilton, D. Evaluation as illumination: A new approach to the study of innovatory programs. Occasional Paper No. 9, Center for Research in the Educational Sciences, University of Edinburgh, 1972.

Pasmore, W. A., & King, D. C. Understanding organizational change: A comparative study of multifaceted interventions. Journal of Applied Behavioural Science, 1978, 14(4), 455-468.

Pate, L., Nielsen, W., & Bacon, P. Advances in research on organization development: Toward a beginning. Group and Organization Studies, 1977, 2(4), 449-460.

Patton, M. Q. Alternative evaluation research paradigms. Grand Forks: University of North Dakota Press, 1975.

Pedersen, K. G. The case for reform in teacher education. Teacher Education, Spring 1974, pp. 4-15.

Peters, L. H., & McKenna, J. F. A structural approach to organization development in a university professional school. Group and Organization Studies, 1977, 2, 172-186.

Pfeiffer, J. W., & Jones, J. E. OD readiness. In W. W. Burke (Ed.), The cutting edge. La Jolla, Ca.: University Associates, 1978.

Plovnick, M., Steele, F., & Schein, E. H. Expanding professional design education through workshops in the applied behavioural sciences. In R. K. Boyer & C. Crockett (Eds.), Organizational development in higher education (Special Issue). Journal of Higher Education, May 1973, 44(5).

Porras, J. I. The comparative impact of different OD techniques and intervention intensities. Journal of Applied Behavioural Science, 1979, 15(2), 156-178.

Porras, J. I., & Berg, P. O. Evaluation methodology in organization development: An analysis and critique. Journal of Applied Behavioural Science, 1978, 14(2), 151-173.

Porras, J. I., & Patterson, K. Assessing planned change. Group and Organization Studies, March 1979, 4(1), 39-58.

Rapaport, R. Three dilemmas in action research. Human Relations, 1970, 23.

Richman, B. M., & Farmer, R. N. Leadership, goals and power in higher education. San Francisco: Jossey-Bass, 1974.

Riley, G. L., & Baldridge, J. V. Governing academic organizations. Berkeley, Ca.: McCutchan, 1977.

Rogers, C. D. Bulmershe College of Higher Education. IMTEC Case Study. Oslo: IMTEC, 1978.

Rogers, E. M., & Shoemaker, F. F. Communication of innovations: A cross-cultural approach. London: Collier Macmillan, 1971.

Runkel, P. J. Humans are social animals: A strategy for change must be a social strategy. Lecture prepared for the 1980 Summer Institute for Teacher Education at Simon Fraser University. In D. Hopkins & M. Wideen (Eds.), Alternative perspectives for school improvement. Book in preparation, 1980.

Runkel, P. J., & Schmuck, R. A. Organization development in schools: A review of research findings from Oregon. Eugene, Ore.: Center for Educational Policy & Management, University of Oregon, 1976.

Runkel, P. J., Schmuck, R. A., Arends, J. H., & Francisco, R. P. Transforming the school's capacity for problem solving. Eugene, Ore.: Center for Educational Policy & Management, University of Oregon, 1978.

Runkel, P. J., Wyant, S. H., Bell, W. E., & Runkel, M. Organizational renewal in a school district. Eugene, Ore.: Center for Educational Policy & Management, University of Oregon, 1980.

Rutter, M., Maughan, B., Mortimore, P., & Ouston, J. Fifteen thousand hours. Cambridge: Harvard University Press, 1979.

Sarason, S. B. The culture of the school and the problem of change. Boston: Allyn & Bacon, 1971.

Sashkin, M., Frohman, M. A., & Kavanagh, M. J. Organization development: theory, research and practice. Homewood, Ill.: Irwin, 1976.

Schmuck, R. A. Incorporating survey feedback in organizational development interventions. Paper presented at the meeting of the American Educational Research Association, New Orleans, February 1973.

Schmuck, R. A. Organization development for the 1980s. In H. Gray (Ed.), Research and consultancy in the management of educational institutions. Sage Annual Review of Social and Educational Change (forthcoming).

Schmuck, R. A., & Miles, M. B. (Eds.). Organizational development in schools. La Jolla, Ca.: University Associates, 1971.

Schmuck, R. A., Runkel, P. J., Saturen, S. L., Martell, R. T., & Derr, C. B. Handbook of organization development in schools. Palo Alto: Mayfield, 1972.

Schmuck, R. A., Runkel, P. J., Arends, J., & Arends, R. The second handbook of organization development in schools. Palo Alto: Mayfield, 1977.

Sieber, S. D. Organizational influences on innovative roles. In J. V. Baldridge & T. E. Deal (Eds.), Managing change in educational organizations. Berkeley, Ca.: McCutchan, 1975.

Sikes, W. W., Schlesinger, L. E., & Seashore, C. N. Renewing higher education from within. San Francisco: Jossey-Bass, 1974.

Smith, L. M., & Geoffrey, W. The complexities of an urban classroom. New York: Holt, Rinehart & Winston, 1968.

Smith, L. M., & Schumaker, S. Some further aspects of fieldwork methodology. Extended pilot trials of the aesthetic education program: A qualitative description, analysis and evaluation. St. Ann, Miss.: CEMREL, 1972.

Stenhouse, L. An introduction to curriculum research and development. London: Heinemann, 1975.

Stenhouse, L. What is action research? Script of a video-tape talk. Norwich: C. A. R. E., University of East Anglia, 1979.

Taylor, J. C., & Bowers, D. G. Survey of organizations. Ann Arbor, Mich.: Institute for Social Research, 1972.

Weber, M. From Max Weber: Essays in sociology. Oxford: Oxford University Press, 1946.

Weber, M. The theory of social and economic organization. London: William Hodge, 1947.

Weick, K. E. Educational organizations as loosely coupled systems. Administrative Science Quarterly, March 1976, 21, 1-19.

Weisbord, M. R. Input versus output-focused organizations: Notes on a contingency theory of practice. In W. W. Burke (Ed.), The cutting edge. La Jolla, Ca.: University Associates, 1978, pp. 13-26.

Werner, W. (Ed.). Curriculum Canada. Vancouver: Centre for the Study of Curriculum & Instruction, University of British Columbia, 1979.

Wideen, M. Innovation and change in teacher education: A cross-cultural perspective. Book in preparation, 1981.

Wideen, M., Hopkins, D., & Fullan, M. Change in Canadian teacher education: Findings from a national study. Pedagogen, Winter 1980.

Young, M. F. D. (Ed.). Knowledge and control. London: Collier Macmillan, 1971.